

# PSYCHOLOGICAL ABSTRACTS

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PUBLISHED MONTHLY, WITH TWO ISSUES DURING DECEMBER, BY

**THE AMERICAN PSYCHOLOGICAL ASSOCIATION**

44 Portland Street, Worcester, Massachusetts

*Editorial Office:* CLARK UNIVERSITY, WORCESTER, MASS.

*Business Offices:* 44 PORTLAND STREET, WORCESTER, MASS., AND ENO HALL, PRINCETON, N. J.

Send changes of address to: Psychological Abstracts, Eno Hall, Princeton, N. J.

Subscription, \$6.00 per year; Foreign, \$6.25.

Entered as second-class matter June 6, 1933, at the post-office at Worcester, Mass., under the Act of March 3, 1879

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# PSYCHOLOGICAL ABSTRACTS

Vol. VIII, No. 4

April, 1934

## GENERAL

1895. Adler, A. Zum Leib-Seele-Problem. (Contribution to the mind-body problem.) *Int. Zsch. f. Indiv.-psychol.*, 1933, 11, 337-345.—Introductory paragraphs present a philosophically abstract comparison between the inorganic and a living cell. Jan Smuts's *Holism and Evolution* is cited as authority for this view. Then follows a section on the thesis that all biological life processes and social adjustments alike show a striving as a fundamental characteristic. The biological interpretations are in teleological, purposive terms and are socially derived concepts. The next section presents Adler's theory of organic inferiority. This is used as an introduction to an extended report of a case of migraine, or possibly hysterical headaches, frigidity, and generally antagonistic and jealous disposition. Adler believes that emotional disturbances may cause functional disturbances which disappear when the attitudes of the patient are corrected.—O. N. de Weerd (Beloit).
1896. Anderson, J. E. Report of section on psychology of the fifth Boston meeting of the American Association for the Advancement of Science. *Science*, 1934, 79, 110-111.—Brief abstracts of psychological papers presented at the fifth meeting of the American Association for the Advancement of Science.—H. W. Karn (Clark).
1897. [Anon.] Memorial to the late Thomas William Salmon. *Science*, 1934, 79, 131-132.—Report of a memorial made by the Thomas William Salmon Memorial Committee. The memorial plans also include a series of lectures to be delivered each year.—M. G. Willoughby (Clark).
1898. [Anon.] Howard C. Warren, 1867-1934. A tribute. *Tr. School Bull.*, 1934, 30, 165.—The scientific world has lost one of the ablest psychologists of our time, whose work reflected that calm and excellence which is the ideal of academic attainment.—E. M. Achilles (Columbia).
1899. [Anon.] Der 13. Kongress der Deutschen Gesellschaft für Psychologie. (The 13th Congress of the German Psychological Society.) *Vjsch. f. Jugendk.*, 1933, 4, 239-243.—The following papers in child psychology presented at the congress are briefly abstracted: theoretical papers on typology (Kroh, Huth), Gestalt (Wirth, Sander), totality psychology (Volkelt, Müller), categories in psychology (Müller), will (Ach), experienced time (Dürckheim), and others; experimental studies on causes of popularity (Zillig), development of literary esthetic experience (Lifert), minus ideal (Schmeing), mischief (Kiessling), social relations of psychopathic youths (Gottschaldt), and others.—M. Lee (Chicago).
1900. Bujas, R. [Ed.] *Acta Instituti Psychologici Universitatis Zagrebensis*. Zagreb: Clanovi psiholo-
- gijskog Instituta. Vol. 1, No. 1, 1932.—R. R. Willoughby (Clark).
1901. Dallenbach, K. M. The pronunciation of *liminal*. *Amer. J. Psychol.*, 1934, 46, 142-145.—A questionnaire sent to 64 psychologists, past presidents of the A. P. A., and psychophysicists resulted in a statement from 32 that the word should be pronounced "lim," and from 27 that it should be pronounced "li."—D. E. Johanssen (Skidmore).
1902. Delgado, H. La nueva psicología espiritual. (The new spiritual psychology.) *Scientia*, 1934, 27, 426-436.—The author's contention is that psychology is not strictly a science and that, for that reason, spiritual psychology can be studied in addition to physiological psychology. There are three levels of the individual psychic life: (1) the vital self; (2) the social self; and (3) the grasp of the complete horizon which comes from studying the history of the whole group. There is a discussion of the spiritual objectives, and also of spiritual experiences, acts and structures. The article closes with a discussion of spiritual comprehension in which the author points out that the qualities of spiritual comprehension are "functions of the force of the intuition of the interpreter." The accomplishments of human science depend upon the opinions and personal attitude of the discoverer, as well as on the meaning of the phenomena.—L. S. Selling (Institute for Juvenile Research).
1903. Dodge, R. Constructive reactionism; knowledge of reality from a psychophysiological viewpoint. *Psychol. Rev.*, 1934, 41, 98-102.—Greek atomism gave us two principles: (1) that reality can be completely known by particularizing analysis, and (2) that the external world is known primarily through the senses. The first is too narrow. The second is fallacious, since the integration of mind does not come from without, but develops within only in reaction to external stimuli. This view, "constructive reactionism," therefore negates both realism and idealism. There is no identity between knowledge as reaction and reality as external stimulus, but only the pragmatic test of validity of the constructs. "The only psycho-physiological device for testing the validity of a construct is whether, and in how far, it meets inner or outer barriers." The widespread implications of this doctrine for science, epistemology, education, ethics and religion are hinted at.—A. G. Bills (Chicago).
1904. Garceau, E. L., & Davis, H. An amplifier, recording system, and stimulating devices for the study of cerebral action currents. *Amer. J. Physiol.*, 1934, 107, 305-310.—An amplifying, recording, and stimulating device for the study of cerebral action currents is described. The general specifications and



limits of this apparatus are given.—C. Landis (N. Y. Psychiatric Institute).

1905. Gates, A. I. Edward Lee Thorndike—president-elect of the American Association for the Advancement of Science. *Science*, 1934, 79, 88-89.—An announcement of the election of E. L. Thorndike to the presidency of the American Association for the Advancement of Science for the year 1934, with a brief discussion of his contributions to the fields of psychology and education.—H. W. Karn (Clark).

1906. Geldreich, E. W., & Wood, T. W. A micro-recorder adapter for use with kymographs and polygraphs. *Amer. J. Psychol.*, 1934, 46, 140.—D. E. Johannsen (Skidmore).

1907. Gilliland, A. R. Genetic psychology. New York: Ronald Press, 1933. Pp. xii + 346. \$3.25.—This is a text book following generally the plan of showing in the first seven chapters the phylogenesis of behavior and specific ontogenetic aspects of human behavior in the later parts. In the ontogenetic part the problem is considered and a chapter each is devoted to: the invertebrate series, the vertebrate series, prehistoric man, the factors in inheritance, and prenatal development. The child at birth is discussed from the standpoint of reflexology, instincts, and random activity. Chapter IX is devoted to "Physical Growth and the Development of Skill," and comprises short paragraphs on factors and laws of learning. Chapters X and XI treat of play and music and art. Chapters XII to XVI inclusive deal with the development of specific mental processes, intelligence, perception, language, memory and thinking, and the emotions. In Chapter XVII, on adolescence, Hall's theories are discussed, as well as sex and other changes occurring at that period. Chapters XVIII and XIX consist in discussions of the growth of personality and character. Disease and health are discussed in the last chapter.—L. S. Selling (Chicago).

1908. Ginsberg, M. Mechanism and vitalism. *Encyclopedia of the Social Sciences*, 1933, 10, 267-271.—The author defines mechanism and vitalism and discusses the rôle played by these opposite points of view in the interpretation of the phenomena of life. A large part of the article is devoted to an account of the various ways in which the mechanistic and vitalistic doctrines have been influenced by changes in scientific methodology and general philosophical outlook.—H. W. Karn (Clark).

1909. Jastrow, J. Mesmer, Franz Anton. *Encyclopedia of the Social Sciences*, 1933, 10, 355.—A discussion of the extent to which Mesmer's early claims influenced the course of discovery of hypnosis as a psychotherapeutic agency.—H. W. Karn (Clark).

1910. Korzybski, A. Science and sanity. An introduction to non-Aristotelian systems and general semantics. Lancaster, Pa.: International Non-Aristotelian Library Publ. Co., 1933. Pp. 798.—This is the first of a projected series of works on so-called "non-Aristotelian systems and general semantics," and as such constitutes, on the one hand, a program for the reformulation of the principles of

science, and on the other, a technique by which many vicious consequences of symbolization may be avoided. Foremost in both program and technique are the rejection of the principle of identity and the recognition of so-called "multiordinal terms." The principle of identity is structurally impossible in a world of ever-changing process, and hence orientation based upon it is "delusional" and "cannot lead to adjustment and sanity." "The mechanism of identification" should therefore be "eliminated by special training" which is "therapeutic in effect." To facilitate training in non-identity the author proposes a simple structural diagram which he calls the "structural differential." With the aid of this device, "the general verbal rejection of 'identity' is translated into ordering which becomes a visual, kinesthetic, neuro-psychological method to train in non-identity or discrimination, and so to eliminate the always dangerous identifications, which play such an important part in all maladjustments." Coincident with this elimination is the recognition of multiordinality in terms. The main characteristic of multiordinals is their systematic ambiguity which "consists of the fact that on different levels of orders of abstractions they may have different meanings, with the result that they have no general meanings; for their meanings are determined solely by the given context which establishes the different orders of abstractions." Realization of this fact "will pave the way for the specifically human full conditionality of our semantic responses" and will eliminate "very serious psychological fixities and blockages" which are "pathological for man." This volume contains profuse annotations from contemporary works; three supplements on The Logic of Relativity, The Theory of Types, and A Non-Aristotelian System and its Necessity for Rigour in Mathematics and Physics; an extensive bibliography; and an index.—A. F. Emch (Harvard).

1911. Lehmann, F. E. Das Prinzip der kombinatorischen Einheitsleistung in der Biologie, im besonderen in der experimentellen Entwicklungsgeschichte, und seine Beziehung zur Gestalttheorie. (The principle of configurational unity in biology, especially in experimental embryology, and its relation to Gestalt theory.) *Biol. Zentbl.*, 1933, 53, 471-496.—Certain general principles are derived from experimental embryology, especially from the analysis of the development of the medullary plate of *Triton*.—E. R. Hilgard (Stanford).

1912. Louttit, C. M., & Lockridge, L. L. Psychological journals. *Amer. J. Psychol.*, 1934, 46, 147-148.—One number of each of 10 psychological journals was searched for references to the literature. 1167 references were found, distributed among 192 different periodicals. 12.5% of the journals provided 63.5% of the references, and nearly 75% were to papers published since 1920. About 75% of the references were to journals printed in English, and the majority of those were to American periodicals.—D. E. Johannsen (Skidmore).

1913. Mabie, E. C., & others. [Eds.] Archives of speech: a journal of research. Iowa City: Depart-



ment of Speech, State University of Iowa. Vol. 1, No. 1, January, 1934.—R. R. Willoughby (Clark).

1914. Morrison, S., & Cook, T. W. An adjustable maze for visual and non-visual learning. *Amer. J. Psychol.*, 1934, 46, 141.—Description of a maze made after the Shepard plan.—D. E. Johannsen (Skidmore).

1915. Paterson, D. G. The forty-first annual meeting of the American Psychological Association. *Amer. J. Psychol.*, 1934, 46, 150-151.—The 41st meeting of the American Psychological Association was held Sept. 7-13 at Chicago. 825 persons attended.—D. E. Johannsen (Skidmore).

1916. Pattie, F. A. The term *protensity*. *Amer. J. Psychol.*, 1934, 46, 148-149.—Titchener did not first use the term *protensity*; it was used earlier by Hamilton, by Ward, and by Stout.—D. E. Johannsen (Skidmore).

1917. Reiss, H. Versuch einer mechanistischen Analyse des Seelen- und Nervenlebens. (An attempt at a mechanistic analysis of mental life and the functions of the nervous system.) Graz: Jos. A. Kienreich, 1933. Pp. 154. M. 5.50.—The writer tries to solve the problem of the activity of the total nervous system on the basis of physical and especially electrical processes. The present writing is the first part of the work; it deals with the peripheral nervous system, the sources of energy, the apparatus of conduction, the ramifications of the nerve current, the function of the neuron, etc., with special consideration of the rôle which electricity plays as a fundamental biological factor in the organic world. A second part in which analogous questions in the narrower field of the mental life are discussed will be published later.—H. Reiss (Graz).

1918. Renshaw, S., & Hampton, I. L. An improved resetting chronoscope. *Amer. J. Psychol.*, 1934, 46, 135-138.—Description of an improvement of the magnetic resetting chronoscope, with the new type clutch, first described in *Amer. J. Psychol.*, 1931, 43, 637.—D. E. Johannsen (Skidmore).

1919. Roback, A. A. Münsterberg, Hugo. *Encyclopedia of the Social Sciences*, 1933, 10, 136.—A biography of Münsterberg, including a brief statement of his philosophy.—H. W. Karn (Clark).

1920. Rocha, R. A., & Mata, L. [Eds.] *Archivos argentinos de psicología normal y patológica, terapia neuro mental y ciencias afines*. Buenos Aires, Argentina. Vol. 1, 1933.—R. R. Willoughby (Clark).

1921. Roeder, K. D. A simple method for measuring small time intervals. *Science*, 1933, 79, 82-83.—The author describes a simple apparatus for measuring small time intervals. The materials needed are a signal magnet with a light flexible steel vibrator, a 60-watt lamp with socket, a push button or switch, and a plug. The adjusting screw is removed from the signal magnet so that the vibrator is suspended free above the electromagnet. The coil of the magnet is connected in series with a lamp and a switch, and the circuit is completed by connecting across the mains. When the current is on, the vibrator is drawn

toward the magnet and vibrates above it at double the frequency of the alternations in the mains. If the pointer of the signal is allowed to record lightly on a revolving drum, it will draw a series of waves of sufficient amplitude to serve as a time record. The peaks of the waves correspond to the alternate surges in the line, so that the distance between 2 adjacent peaks corresponds to the time occupied by half an alternation. The frequency of the A. C. current must be known in order to calculate the time intervals involved.—H. W. Karn (Clark).

1922. Ruckmick, C. A. Eleanor Acheson McCulloch Gamble: 1868-1933. *Amer. J. Psychol.*, 1934, 46, 154-156.—A brief summary of Miss Gamble's life and an appreciation of her contributions to psychology, as well as a tribute to her personality.—D. E. Johannsen (Skidmore).

1923. Salomon, G. Müller-Lyer, Franz Carl. *Encyclopedia of the Social Sciences*, 1933, 11, 83-84.—A short biography of Müller-Lyer, with particular reference to his "phraseological method" of research, by which he distinguished, described and correlated general successive culture stages through which human societies had passed.—H. W. Karn (Clark).

1924. Stern, W. Otto Lipmann: 1880-1933. *Amer. J. Psychol.*, 1934, 46, 152-154.—A summary of the intellectual contributions of Lipmann to psychology, and an appreciation.—D. E. Johannsen (Skidmore).

1925. Stern, W. Aus den letzten Arbeiten des Psychologischen Instituts der Hamburgischen Universität. 1931-1933. (The last studies of the Psychological Institute of the Hamburg University.) *Zsch. f. angew. Psychol.*, 1933, 45, 397-418.—The Psychological Institute of the Hamburg University was founded by Meumann in 1912. Since 1915 William Stern was its director until he was forced to resign in 1933. This report reviews the work of the institute as shown in 43 publications during the last three years of his fruitful directorship. The topics comprise general problems in personality and thinking, perception, child psychology, legal psychology, and practical psychology.—K. F. Muenzinger (Colorado).

1926. Stevens, S. S. A switch for the presentation of electrically generated tonal stimuli. *Amer. J. Psychol.*, 1934, 46, 138-139.—A description of a switch which does away with the click which accompanies the make and break of a circuit. It is found particularly useful in sound experimentation.—D. E. Johannsen (Skidmore).

1927. Vlach, M. *Lehrbuch der Psychologie*. (Textbook of psychology.) (8th rev. ed.) Vienna: W. Braumüller, 1933. Pp. vii + 171. S 6.50 (RM. 3.50).—This textbook destined for higher schools and for self-instruction of the layman does not represent the teaching of any particular school, but gives information about the results and directions of contemporary psychological research. The organization of the book has been taken over from the textbook by Jerusalem. His Wundtian scientific theoretical "Oberflächenpsychologie" is enlarged by the applied

psychology and the modern "Tiefenpsychologie." Starting from the basic facts and fundamental concepts of mental life (concept of soul, body and mind, consciousness, unconsciousness, subconsciousness, etc.) the different mental processes and dispositions (thought, feeling, will, intelligence, temperament, etc.) are discussed in their nature and in their place in the total organization of the mind. The application of psychology in the fields of economics, instruction, jurisprudence and medicine, and the development and the disturbances of the different mental processes are presented. Thus the subject matter, characteristics and results of psychotechnics, psychoanalysis, individual psychology, child psychology, psychopathology, etc., are discussed, as well as the psychology of advertising.—*M. Vlach* (Vienna).

1928. Woodworth, R. S. Shepherd Ivory Franz: 1874-1933. *Amer. J. Psychol.*, 1934, 46, 151-152.—A brief biographical sketch and appreciation of the contributions of Franz to psychology.—*D. E. Johanssen* (Skidmore).

1929. Zietz, K. *Aufgaben der Psychologie der Gegenwart*. (Problems of present-day psychology.) *Dtsch. Schule*, 1933, 37, 641-645.—A report of the Thirteenth Congress of the German Society for Psychology in Leipzig, October 19. The meeting revealed a trend toward seeing psychology in relation to the cultural epoch and the social trends of Germany. Hartnacke emphasized the indispensability of psychology in the solving of social problems. F. Krueger stressed the change in attitude among German psychologists from the individualistic and intellectualistic to the social and emotional. He swings from the Freudian in viewing the subconscious as significant not only in a study of the lower aspects of the psychic life but as origins out of which the higher intellectual and emotional life evolve. Poppeleuter contributed a paper on "Problems of Political Psychology," attributing to A. Hitler an intuitive insight into mass psychology which has value. L. F. Clauss spoke on the "Germanic Mind" and E. R. Jaensch on "The German Movement." The group interested in typology and characterology called attention to the multiplicity of groupings of personality types, and hoped for simplification. The pedagogical wing made contributions along the line of eidetism, Bonte of Hamburg having made extensive studies.—*A. B. Herrig* (Michigan Central State Teachers College).

[See also abstracts 2088, 2092.]

#### SENSATION AND PERCEPTION

1930. Accardi, —. [The threshold of light stimulation in normal and pathological conditions and under the action of some drugs.] *Ann. di ottal. e clin. ocul.*, July, 1933.—*R. J. Beitel, Jr.* (Clark).

1931. Allen, J. F. The binocular oscillation and fusion of colors. *Canad. J. Res.*, 1933, 8, 390-401.—(*Biol. Abst.* VIII: 784).

1932. Bertlett, F. C. Adaptation et fatigue. (Adaptation and fatigue.) *J. de psychol.*, 1933, 30,

673-691.—A perusal of the psychological and physiological literature reveals at least four uses of the term "adaptation." Adaptation is said to be evinced when a decrease in activity follows constant presentation of a stimulus, when recuperation of a function occurs, as in dark adaptation, when activities initiated and maintained by periodic stimulation persist after cessation of the stimulus, and when activity remains normal under anomalous circumstances. These forms of adaptation are sufficiently differentiated to warrant separate names. These are, respectively, decremental adaptation, recuperative adaptation, persistent adaptation, and acclimatization. An analysis of the mechanisms involved reveals that it would be better to use the term "adaptation" for only the first of these, the others being designated as "recovery of the rods in darkness," "the normal effects of periods of continued stimulation," and "acclimatization." The last two phenomena involve central integration. After a detailed analysis of the phenomena known under the rubric of fatigue, it is suggested that fatigue is manifested by a decrease in activity, but perhaps also by a decrease in the quality of activity. The mechanism of fatigue is envisaged in terms of physiological conflicts. Bibliography.—*N. L. Munn* (Pittsburgh).

1933. Bazett, H. C., & McGlone, B. Studies in sensation. III. Chemical factor in the stimulation of end-organ giving temperature sensations. *Arch. Neur. & Psychiat.*, 1932, 28, 71-91.—(*Biol. Abst.* VIII: 786).

1934. Berg, R. Ueber einen Fall von Pigmenteinlagerungen im Sehnerven. (A case of pigment deposition in the optic nerve.) *Alfeld* (Leine): Stegen, 1933. Pp. 11.—*R. R. Willoughby* (Clark).

1935. Bickerton, J. M. Hereditary blindness. *Eug. Rev.*, 1933, 25, 167-169.—Reviews the findings of the Prevention of Blindness Committee; commends the stand of the Committee regarding eugenic implications.—*B. S. Burks* (California).

1936. Bornstein, B. [Judgment and consonance.] *Polskie Arch. Psychol.*, 1932, 1, 48-62.—An analogy exists between the laws of auditory consonance and the logical relations between subject and object. No part of the harmony between subject and object is as well expressed as in the realm of sound. The phenomenon may not be explained by the physiological synergy of Stumpf, but by an appeal to unconscious mentality. This eliminates the difficulties of dualistic explanation resulting from the Kantian distinction between sense perception and reasoning. In opposition to the sensory psychology of the subjective side of the phenomena, the author offers a "theoretical esthesiology."—(Courtesy *Année psychol.*)

1937. Bujas, R. Ueber den Zusammenhang von positivem und negativem Nachbild. (The relation between positive and negative after-images.) *Acta Inst. Psychol. Univ. Zagreb.*, 1932, 1, 1-7.—Both positive and negative after-images represent phenomena of adaptation. Adaptation is a functional change of the sense organs, and consists in a diminu-



tion of the capacity to respond to the same stimulus. If the adaptation is complete there is no sensation; sensation arises only when there is a difference in the equation between stimulus and adaptation of the organ. If after a luminous stimulation we close the eyes the equation is disrupted and a positive after-image arises; but if we look at a gray background, we have a negative after-image, because when the eyes are adapted, e.g., for red, one does not perceive any more the red component of the diffuse light, but only the remaining (green + blue) components of gray. The same explanation applies to the case, e.g., when after fixation of red the after-image on an orange ground appears yellow. Achromatic after-images and phenomena of blending are to be explained on the same basis.—A. Angyal (Worcester State Hospital).

1938. Byrne, J. G. *Studies on the physiology of the eye*. London: H. K. Lewis & Co., Ltd., 1933. Pp. 419. 40s.—This volume contains experimental studies in certain physiological phenomena of the eye. It is divided into four parts. Part 1 is concerned with paradoxical pupillary phenomena following lesions of the afferent paths; Part 2 deals with preliminary palpebral widening, paradoxical palpebral and lens phenomena and inherent tonus phenomena; Part 3 describes certain stimulation experiments; and Part 4 is devoted to a discussion on inherent pupillary constrictor tonus and the mechanism of the still reaction, sleep, dreams, hibernation, repression, hypnosis, narcosis, coma, and related conditions. Part 1 has been published in the *American Journal of Physiology*, 1921-29, and except for the experiments on the "functions of the cervical sympathetic as manifested in its action currents" (Chapter VII) done in collaboration with Willem Einthoven of Leiden University, this work is solely the product of the author's own thought and research experience. Each chapter contains a brief survey of the literature pertaining to the subject, an account of the methods used in the animal experiments the author has performed, and the facts gleaned from these experiments, followed by a discussion of their significance. A summary and the relevant bibliography are appended at the end of each chapter. There are a number of illustrations, mainly photographs of cats, drum-tracings and diagrams.—R. J. Beitel, Jr. (Clark).

1939. Carlson, W. R., Driver, R. C., & Preston, M. G. Judgment times for the method of constant stimuli. *J. Exper. Psychol.*, 1934, 17, 113-118.—On the basis of a large number of judgments and with an improved reaction-time technique, the authors find that the judgment times for the three categories of judgment for the method of constant stimuli of "less," "equal" and "greater" are exceedingly similar, and in no case are the differences great enough to be statistically significant.—H. W. Karn (Clark).

1940. Cohen, N. E. Equivalence of brightnesses across modalities. *Amer. J. Psychol.*, 1934, 46, 117-119.—The present study was undertaken to determine whether Von Hornbostel's contention that brightnesses in different modalities are identical was con-

firmed by a different method of experiment. A series of tones was compared to a standard odor, a series of grays was compared to a standard odor, and a series of tones was compared to a standard gray. The method of constant stimuli was used. The results are too discrepant to permit the acceptance of the idea of an identity in the various brightnesses. It is suggested that the comparisons were made in terms of absolute rather than relative judgments.—D. E. Johannsen (Skidmore).

1941. Cornish, R. E. Improving underwater vision of lifeguards and naked divers. *J. Opt. Soc. Amer.*, 1933, 23, 430.—A simple combination of plano-convex lenses is described which conveniently and satisfactorily corrects the refractive error of the normal human eye under water.—M. R. Stoll (Johns Hopkins).

1942. Davis, H., Derbyshire, A. J., Lurie, M. H., & Saul, L. J. The electric response of the cochlea. *Amer. J. Physiol.*, 1934, 107, 311-332.—"When sound waves fall upon the ear of an anesthetized cat, an electric response, distinct from nervous action currents, is generated in the cochlea. When transformed again into sound it reproduces with great fidelity spoken words and pure tones. The response measured at the round window of the inner ear may amount to one millivolt. Positive pressure on the ear drum causes a fall and negative pressure a rise in the electrical potential of the round window. The opposite relation holds for the oval window. The response is only slightly depressed by increasing anesthesia until the circulation fails. It then falls rapidly to from five to twenty per cent of its original strength and more slowly to extinction in one-half to several hours. The response is immediately abolished by pithing the basilar membrane. The latency of the first electrical response following the arrival of a sound wave at the ear drum is about 0.1σ. The latency of the action currents in the eighth nerve is of the order of 1σ with respect to the cochlear response. The electric response follows the frequency of the stimulating tone up to at least 8000 per second. The response to the sudden impact of a train of sound waves at any frequency is a rapidly decrementing series of electrical oscillations of a frequency between 600 and 1000 per second. This 'on effect' merges into the response at the frequency of the stimulating tone. After cessation of stimulation with a strong tone above 1000 per second a similar series of decrementing oscillations appears. The cathode ray oscillograph shows that the wave form of the stimulus is reproduced accurately except for non-linear distortion by the ear. This distortion includes the introduction of higher harmonics and relative accentuation of those already present. The cochlear response reveals the presence of a 'difference tone' when the ear is stimulated by two tones simultaneously. This is further evidence of non-linear distortion. The intensity of the cochlear response is not a linear function of the strength of the stimulus as measured by a condenser microphone. The curve relating to the logarithm of the stimulus is sigmoid in shape, reaching its maximum at approximately the intensity



which causes discomfort to the human ear. The curve relating threshold stimulus to frequency closely resembles the human audibility curve, both in absolute values and in the range of maximum sensitivity. The cochlear response was present but auditory action currents were absent in an animal showing inflammation of the nerves within the bony spiral of the cochlea. The cochlear response and also action currents were absent from a cat showing congenital absence of the organ of Corti and from a waltzing guinea pig showing no gross anatomical deficiency but merely partial degeneration of the sensory hair cells. The utility of the cochlear response as a tool for the analysis of auditory function is pointed out. The theoretical implications of the data are discussed. The cochlear response is interpreted as arising in the sensory cells of the organ of Corti as a result of mechanical deformation."—C. Landis (N. Y. Psychiatric Institute).

1943. Eames, T. H. Sympathetic nervous activity in the eye. *Amer. J. Optom.*, 1933, 10, 389-391.—"With the extensive connections existing between the sympathetic nervous mechanisms in the eye and those elsewhere in the body the possibility of an infinite number of conditioned reflexes is evident."—R. J. Beitel, Jr. (Clark).

1944. Franceschetti, A. Sobre la sensibilidad de la cornea. (Regarding the sensitivity of the cornea.) *Rev. oto-neur.-ofal.*, 1933, 8, 387-390.—Von Frey concluded, from his studies on the sensitivity of the cornea, that only pain was present and that pressure sensitivity was completely absent. Molber and Nagel claimed, on the other hand, that pressure sensitivity was present in the cornea. Goldscheider and Bruckner corroborated the findings of Nagel. Marx recently has attempted to solve the problem of single or double sensitivity in the cornea by means of mathematical treatment of experimental data. He took for his base a curve of the sensitivity of the cornea as determined under anesthesia. Since a simple exponential function was apparent Marx concluded that only one class of nerve sensitivity was involved. If two different classes of nerves exist Marx believed that the curve of sensitivity would show an inflection at the point where the second group of nervous processes came into action. The author points out that the argument is inadequate, since two sets of nervous processes could be in action simultaneously from the beginning, so that no sudden inflection would appear. The author's analysis by means of a revised technique points to two types of sensitivity in the cornea.—J. W. Nagge (Chicago).

1945. Gates, L. W. The after-effect of visually observed movement. *Amer. J. Psychol.*, 1934, 46, 34-46.—The problem of the present study was to investigate some of the aspects of the observed after-effects of spiral movement. Indirect vision was used exclusively. Two disks, each with a black spiral upon a white ground, were viewed (1) with the right eye alone (the right disk revolved in a clockwise direction), (2) with the left eye alone (the left disk revolved in a counter-clockwise direction) and (3) with both eyes simultaneously. 90 S's were used:

all were naïve with respect to the problem. Verbatim reports were made of the Ss' observations. Four different after-effects were obtained with the monocular observation, of which the most common was a movement toward or away from S. Binocular observation resulted in an after-effect in which one of the disks appeared to be moving toward and one away from S. It is tentatively suggested that a motor theory best accounts for the observed facts.—D. E. Johannsen (Skidmore).

1946. Godlove, I. H. Neutral value scales. II. A comparison of results and equations describing value scales. *J. Opt. Soc. Amer.*, 1933, 23, 419-425.—Various equations proposed for the relation between brightness and reflection are tested by their agreement with data from Cobb and from the Munsell laboratory. A new empirical equation is found to fit these data best, and it is suggested that this may be useful as an interpolation formula.—M. R. Stoll (Johns Hopkins).

1947. Grimm, R. Über die Möglichkeit binocular ungleich zu akkommodieren, und über das Wesen der Akkommodation. (On the possibility of accommodating unequally in binocular vision, and on the nature of accommodation.) *Graefes Arch. f. Ophth.*, 1933, 131, 127-138.—When eyes of unequal refraction yield sharp binocular vision is it because the better eye wins out or because accommodation is differential? The author repeated Hess' needle-point test: unless the two eyes differ in refraction a lens is placed in front of one of them to make them differ. Then the subject attentively fixates a small letter or mark with a needle held up about 1 cm. in front of it. If the crossed images of the needle appear of equal definition differential accommodation has occurred. Contrary to Hess, Grimm was able to secure this result with this and more convincing forms of test. He reports equalization, by unequal accommodation, of a refractive difference of the order of 1 diopter. The accommodative process itself is essentially involuntary, but it is not of the order of ordinary reflexes like the pupillary; rather, it is a "psycho-reflexive" reflex closely associated with perceptual attention.—S. M. Newhall (Yale).

1948. Hayes, S. P. New experimental data on the old problem of sensory compensation. *Teachers' Forum (Blind)*, 1933, 6, 22-26.—The author presents new evidence on two types of possible compensation for blindness, in answer to the theory of increased sensory acuity in the blind. Studies include a survey made among blind subjects in the Pennsylvania Institution for the Blind and at Bryn Mawr College (students and teachers), using a Western Electric audiometer. There is also a study of recognition of objects by blind and by seeing subjects by means of audition and kinesthesia. Medians and average performances for the groups are given at eight different pitch levels, ranging from 64 d.v. to 8192 d.v. Blind boys were superior to blind girls, while seeing women were better than both blind groups at each level. The second experiment on recognition of objects through audition and kinesthesia was given to subjects at

Perkins and Pennsylvania Institutions for the Blind, and to seeing students at Mount Holyoke College. In most trials the medians for seeing subjects were better than fastest scores made by blind subjects. One table shows median time and slowest and fastest scores, and another gives frequencies and number of trials required. Both blind and seeing subjects were found to use similar methods. Audition and weight were about equally mentioned by both as cues. No noticeable sex differences were found in performance, and no clear indication of relation between intelligence scores and facility in performance. These experiments tend to indicate that there is no evidence of compensatory sensitivity in the blind on performances in which they have had no occasion for practice.—*S. M. Stinchfield* (Univ. Southern California).

1949. **Helson, H., & Quantius, L.** Changes in skin temperature following intense stimulation. *J. Exper. Psychol.*, 1934, 17, 20-35.—This study concerns the changes in skin temperature following intense stimulation, measured by means of a thermocouple potentiometer. The results of the experiments are summarized as follows: (1) There is a tendency for some stimuli to cause predominantly positive temperature changes while others show more negative changes. The variations in temperature may be as large as 4°. (2) Almost any sort of stimulation will cause temperature change if intense and sudden enough, or if it possesses "stimulating character" such as is found in crucial words of the word-associations test. Often anticipation of an unpleasant stimulus caused more change than the stimulus itself. (3) The presence or absence of emotional states cannot be inferred from the temperature response, although there is a tendency for large changes to be accompanied by reportable internal changes.—*H. W. Karn* (Clark).

1950. **Ijdo, E.** [Ed.] *Indicia ophthalmologica*. Leiden: Editor, 1933. (2nd. ed.) 7 Swiss fr.—A directory published by the International Ophthalmological Council, containing the following data: a list of all the oculists in the world, the ophthalmological journals, the ophthalmological societies, the public hospitals more or less exclusively intended for nursing diseases of the eyes, institutions and schools for the blind, and various statistics on blindness.—*A. B. Hunter* (Clark).

1951. **Kreezer, G.** The significance of the auditory electrical effects for auditory theory. *Amer. J. Psychol.*, 1934, 46, 1-18.—Two different physiological effects are produced when the ear is stimulated by sound: (1) The Davis-Saul effect, reported only by these investigators, is reported as being a true action current, and it has 6 definite characteristics, e.g., it follows the frequency of the stimulating waves up to but not over 900 or 1000 per sec., on the cathode-ray oscillograph appears as waves of the shapes and time relations characteristic of action currents in peripheral nerves, travels with the speed of usual nerve impulses, etc. (2) The Wever-Bray effect, substantiated by other observers, and sometimes called "cochlear spread," reproduces the frequency

of the stimulus up to 5000 cycles, on the cathode-ray oscillograph appears as the wave form of the stimulus, at least above 800 per sec., is resistant to narcosis, etc. Analysis of these characteristics and a consideration of their significance in terms of auditory theory leads the author to conclude that the so-called volley theories of hearing cannot be considered correct, but that it cannot be decided whether the telephone theories are or are not correct.—*D. E. Johannsen* (Skidmore).

1952. **Luckiesh, M., & Moss, F. K.** Seeing in sodium-vapor light. *J. Opt. Soc. Amer.*, 1934, 24, 5-13.—The authors discuss the results of a series of experiments which they have reported in more detail in earlier papers. Although measurements of brightness-contrast, acuity, and speed of vision indicate some slight superiority for sodium-vapor light as compared with tungsten-filament light, it is pointed out that with a slightly higher intensity of the latter, performance will improve, and that under ordinary circumstances the distortion of color values can scarcely be compensated for by the slight gain in acuity and speed.—*M. R. Stoll* (Johns Hopkins).

1953. **Mallory, E. B.** The recognition of relatively simple sensory experiences. *Amer. J. Psychol.*, 1934, 46, 120-131.—The problem of the present study was to determine whether the apparent superiority which certain sense modes have in memory is dependent upon the qualitative character of those stimuli (e.g., vision, audition) or upon extraneous factors such as complexity, variety, attention-value, etc. Very simple sense stimuli were used (e.g., shades of gray for vision, single tones for audition, etc.); they were presented to the S singly and in various combinations, and then re-presented together with "confusion" stimuli of a similar nature. It was found that no one of the sense departments had a marked superiority over any of the others, and they all appear equally easy to associate. Complexity appears to be of great importance as an aid to recognition value.—*D. E. Johannsen* (Skidmore).

1954. **Pascal, J. I.** The dual role of the iris. *Amer. J. Optom.*, 1933, 10, 392-394.—*R. J. Beitel, Jr.* (Clark).

1955. **Paul, L.** Beiträge zur Lokalisationsophthalmoskopie, II. (Contributions to localization ophthalmoscopy, II.) *Graefes Arch. f. Ophth.*, 1933, 131, 253-296.—The author refers to the prior publication, I., in which he schematized the human eye on the basis of various relatively recent measurements. The principal problem in localization is to compute the course and retinal position of given incident light. Departures of real eyes from optical paradigms need to be taken into account. The present study extends the applications and increases the usefulness of the schematic eye. A formula and a constant,  $n$ , are described by which an emmetropic eye of any size can be equated to the schematic eye. By this means the constants of the schema are made available for a given eye and intercomparisons become possible. Formulae, tables, curves, and diagrams are presented for taking account of ametropia and various refractive anomalies. There are nine appendices contain-



ing detailed steps for as many calculations and 24 references to the literature.—S. M. Newhall (Yale).

1956. Pavía, J. L. *Clasificación práctica y racional de las causas de ceguera*. (A practical and rational classification of the causes of blindness.) *Rev. oto-neur.-oftal.*, 1933, 8, 406-409.—Cridland has stated that no country has gathered comprehensive statistics relating to the causes of blindness within its borders. The first step towards international cooperation in this respect is the formulation of an adequate standard table into which the various causes of blindness may be thrown and classified. Márquez has suggested a practical and rational double classification for this purpose. The location of the ocular lesions, e.g. retinal, corneal, etc., is placed on one axis; the causal diseases, such as intoxication, hereditary diseases, ocular infections, etc., are placed on the other axis. In this fashion international statistics may be readily gathered. Pavía has reclassified the two groups suggested by Márquez so that there are eleven groupings of causal diseases and nine groups of localized lesions, thus yielding ninety-nine divisions in the standard classification.—J. W. Nagge (Chicago).

1957. Pavía, J. L. *Cómo se efectúa el examen visual en las escuelas de Buenos Aires*. (The method of visual examination in the schools of Buenos Aires.) *Rev. oto-neur.-oftal.*, 1933, 8, 438-442.—In 1920 a department of ophthalmology was added to the school medical corps of Buenos Aires. Its function was the discovery and treatment of student visual defects. The teachers administered the general reading test for visual acuity. Those children falling below the standard were further examined by the specialists. The general reading tests, however, failed to reveal chromatic blindness, near-sightedness, and other special conditions which are important for the conservation of vision.—J. W. Nagge (Chicago).

1958. Poljak, S. A contribution to the cerebral representation of the retina. *J. Comp. Neur.*, 1933, 57, 541-617.—A series of experiments gave results which favor the concept that the parts of the retina are projected in a point-to-point manner on a stable, fixed portion of the area striata of the occipital cortex. The macula has its own projection area, which, though distinct, is contiguous with that of the peripheral areas of the retina. No evidence whatever was found to support the concept of bilaterality of the macular projection, as has been claimed heretofore by the majority of neurologists.—C. P. Stone (Stanford).

1959. Pradines, M. *Toucher et douleur: II. Toucher et douleur cutanée. III. Toucher et douleur viscérale*. (Touch and pain: II. Touch and cutaneous pain. III. Touch and visceral pain.) *J. de psychol.*, 1933, 30, 692-780.—The author presents the theory that pain has developed along with intelligence and tactual sensitivity as a defense mechanism against external irritation. His review of the literature on pain sensitivity in animals and human beings leads him to the conclusion that as intelligence increases the threshold for pain decreases. An analysis of the

various data and theories on pain sensitivity, including those on the question of visceral sensitivity, leads him to claim that even visceral pain and pain from inanition have their sources in tactual irritation. There is a detailed review of the literature on inhibition of pain sensitivity, including an evaluation of the theories of Goldscheider and Head. The psychophysics of pain is also discussed in this connection. In discussing visceral pain, the author evaluates, in the light of his theory, the data on abolition of pain and anomalies of pain sensitivity. The footnotes contain extensive reference to the literature.—N. L. Munn (Pittsburgh).

1960. Pratt, C. C. Theoretical studies from the Harvard psychological laboratory. Tonal fusion. *Psychol. Rev.*, 1934, 41, 86-97.—The concept of fusion, as defined by Stumpf, is equivocal. With the exception of the octave, significant differences in fusion do not exist, and the only intervals deviating from a common level of unitariness are those in which a roughness of beats disfigures the tonal impression. Therefore the concept of fusion has no significance, because, for scientific purposes, the interval is adequately described in terms of its physical and physiological conditions.—A. G. Bills (Chicago).

1961. Smith, J. M. The sensory function of the non-preferred hand. *J. Exper. Psychol.*, 1934, 17, 154-159.—This experiment consisted in having two opposite-handed subjects read Braille script with their fingers, a sensory task. It was found that the right-handed subject showed a shorter reading time with the left hand, while the left-handed subject showed a shorter reading time with the right hand. This more efficient use of the non-preferred hand in sensory activity is interpreted as being due to a preferential use of that hand for sensory functions.—H. W. Karn (Clark).

1962. Stevens, S. S. The relation of saturation to the size of the retinal image. *Amer. J. Psychol.*, 1934, 46, 70-79.—The present experiment was undertaken in order to throw light upon the question why a change in the distance from a gray mixture produced by mixing R and BG appears gray only at certain distances from the color wheel. Upon a color mixer were placed two sets of disks: a large R and BG, adjusted to appear gray, and a small Bk and W mixture. S was instructed to: (1) alter his distance from the mixer so that the two grays (observed through small holes) were alike, or (2) to alter the size of the holes so that both grays were alike. The obtained data indicate that not only are the saturation and hue dependent upon the size of the retinal area and its position, but also for a constant increment of change in saturation a constant proportion of the area stimulated must be added. The center of the fovea is found to be more sensitive to R than to BG, the periphery more sensitive to BG. It is suggested that R and BG affect different receptors, and that they differ in density in different parts of the retina, the R being more concentrated at the center of the fovea as compared to the BG.—D. E. Johannsen (Skidmore).



1963. Stevens, S. S. Are tones spatial? *Amer. J. Psychol.*, 1934, 46, 145-147.—Work with a congenitally blind woman indicates that tones do not have a truly spatial character.—D. E. Johannsen (Skidmore).

1964. Tinker, M. A. The statistical limen versus the average as a measure of visual apprehension. *J. Exper. Psychol.*, 1934, 17, 105-112.—In this study the statistical limen was compared with averages computed in several ways, as a measure of visual apprehension of letters. Individual averages and limens for 17 subjects as well as group results were considered. In every comparison the statistical limen was considerably larger than the averages. For the entire group of subjects, the limen was approximately  $1\frac{3}{4}$  items larger than the average. The average scores of apprehension were highly correlated with each other and with the statistical limens. In general, scoring method produces a decided difference in absolute span of visual apprehension, but produces no practical difference in size of score in relation to other scores in the group.—H. W. Karn (Clark).

1965. Walker, R. N. A method of optometric quantitative analysis by certain interpretations of the findings from a routine examination. *Amer. J. Optom.*, 1934, 11, 1-26.—Case-typing.—R. J. Beitel, Jr. (Clark).

1966. Wetenkamp, L. Ueber die Materialtäuschung. (On the material illusion.) *Zsch. f. Psychol.*, 1933, 130, 172-234.—When two objects, equal in size, shape and weight, but different in material, e.g. wood and iron, are lifted, that which appears as lighter is judged as heavier. The determining factor in this "material" illusion is a visually conditioned set, primarily sensory rather than motor in character, which constitutes an essential part of the perception of the object. In the experiments reported the amount of the illusion was measured by means of the method of constant stimuli. The substances were then artificially weighted, and presented repeatedly to the other hand, so as to produce a changed sensory set without affecting the motor set of the first hand, after which the illusion was again measured. It was found that a change in set was capable of effecting a change in the amount and duration of the illusion.—R. B. MacLeod (Swarthmore).

1967. Wiseman, E. G. Latent exophoria and the reduction of ocular refraction with special reference to tetanus of ciliary and recti muscles. Part III. *Amer. J. Optom.*, 1933, 10, 395-414.—The phylogenetic development of the visual system is referred to by way of explanation. It is suggested that clinical treatment be directed in line with such an approach.—R. J. Beitel, Jr. (Clark).

1968. Wyatt, L. K. A case leading to the study of the accommodation-convergence relationship. *Amer. J. Optom.*, 1934, 11, 32-35.—R. J. Beitel, Jr. (Clark).

1969. Zigler, M. J., Moore, E. M., & Wilson, M. T. Comparative accuracy in the localization of cutaneous pressure and pain. *Amer. J. Psychol.*, 1934, 46, 47-

58.—The present experiment was performed in an attempt to resolve the conflict reported in the literature with respect to the accuracy with which pain and pressure are localized. The Von Frey esthesiometer was used for the pressure stimulations, while a spine from the purple-top thistle was used to produce the pain. The 6 S's were given a preliminary period of training before the experiment proper was performed. In a series of three experiments it was found that the error of localization was smallest for the pressure-pain complex (frequently aroused by the stimulation with the thistle), next smallest for pure pain, and largest for pressure, but the differences were slight. It is suggested that the greater accuracy in localizing the pressure-pain complex may lie in the fact that two kinds of impulses are integrated in the cortex in that case, whereas in the case of pressure and pain alone the impulses are more homogeneous in character.—D. E. Johannsen (Skidmore).

1970. Zoll, P. M. The relation of tonal volume, intensity, and pitch. *Amer. J. Psychol.*, 1934, 46, 99-106.—The author analyzes the results of earlier studies and reports experiments of his own, which indicate that tonal volume cannot be considered a category of sensory discrimination, and that higher frequencies tend to be more intense.—D. E. Johannsen (Skidmore).

[See also abstracts 1985, 2020, 2029, 2033, 2037, 2051, 2058, 2059, 2060.]

#### FEELING AND EMOTION

1971. Duffy, E. Is emotion a mere term of convenience? *Psychol. Rev.*, 1934, 41, 103-104.—Worcester's defense of the concept of "emotion" is attacked on two grounds: (1) even though it does refer to bodily conditions worthy of study, giving up the concept will not terminate such study of the bodily components; (2) it is not true that the terms for the specific emotions describe unique arrangements of elements.—A. G. Bills (Chicago).

1972. White, M. M., & Ratliff, M. M. The relation of affective tone to the learning and recall of words. *Amer. J. Psychol.*, 1934, 46, 92-98.—In an effort to determine the affective tone of words, 150 S's marked every one of a list of 240 words as P, U, or indifferent (5 steps). On the basis of these results, 10 P, 10 U, and 10 indifferent words were selected and presented to 42 S's in a Ranschburg memory apparatus with instructions to remember. The anticipation method was used. Half of the S's were asked to recall the words after one and half after two weeks. In a second experiment longer time intervals and no indifferent words were used, and in a third experiment two lists of 15 words each were read once to 239 students, who were then asked to write all the words that they remembered. The results indicated that there is no difference in ability to recall P and U words, in Exp. I (instructions to master), while in Exp. II and III more P than U words were remembered. The indication is that more P than U words are remembered if complete mastery is not required. It is concluded that the experiments

support an active theory of forgetting.—D. E. Johannsen (Skidmore).

[See also abstract 2195.]

#### ATTENTION, MEMORY AND THOUGHT

1973. Arbonsoff, V., & Vertai, G. Imagery tests. *Sovet. psikhotekh.*, 1932, 5, 359-370.—Tests involved analogies and classifications. Automotive drivers make fewer mistakes in imagery tests, while school pupils make fewer in verbal tests. It is suggested that this is due to training. Introspection as to reasons for responses is desirable.—H. E. Burt (Ohio State).

1974. Maslow, A. A. The effect of varying external conditions on learning, retention, and reproduction. *J. Exper. Psychol.*, 1934, 2, 36-47.—Using memory span learning, two experiments were carried out to find the effect of varying external conditions on the efficiency of the learning process. The results are interpreted as giving some slight support to the theory that similar conditions for learning and recall are more efficient than dissimilar conditions. Advantages and disadvantages of the method are discussed.—H. W. Karn (Clark).

1975. McGeoch, J. A., & McKinney, F. Retroactive inhibition in the learning of poetry. *Amer. J. Psychol.*, 1934, 46, 19-33.—The problem of the present study was to check the correctness of the hypothesis that all forgetting is a function of the interpolated material, with meaningful original material. 12 lines of poetry were studied for 5 minutes by the S's, and then 5 min. were allowed for recall. 15 min. from the end of this period a second 5 min. recall period was allowed. One week later a third 5 min. recall period was given. During the 15 min. rest period between the first and second recalls one group of S's took the Seashore pitch discrimination test, while the other group immediately learned another group of stanzas from the same poem (first work condition) or studied two lists of 10 nonsense syllables (second work condition). It is found "that poetry is susceptible to a small degree of inhibition from interpolated learning of poetry of the same kind, when recall occurs 15 min. after the original learning, that this susceptibility is increased considerably after 7 days, and that it is greater after 7 days when there has been no intermediate recall after 15 min. The interpolated learning of nonsense syllables has the same general effect as does the interpolation of poetry."—D. E. Johannsen (Skidmore).

1976. Mitchell, M. B. Anticipatory place-skipping tendencies in the memorization of numbers. *Amer. J. Psychol.*, 1934, 46, 80-91.—An analysis of 800 place-skipping errors made in learning lists of 10 three-place numbers indicated that "on the whole, the number of the errors for each degree of anticipation was an inverse curvilinear function of its distance from the true position in the list. No evidence was found for backward associations. The place-skipping errors were most frequent in the second and third

quarters of the learning time. . . . Most of the place-skipping errors occurred in the serial positions just beyond the middle of the list and were numbers with true positions also located there. . . . These data were quite unsatisfactory in giving evidence for Lumley's theory that the more remote degrees of anticipation decrease and the nearer ones increase as the learning progresses."—D. E. Johannsen (Skidmore).

1977. Sacristán, J. M., & Germain, J. Constitución eidética e inteligencia general. (Eidetic constitution and general intelligence.) *Med. d. trab. e hig. indus.*, 1933, 4, 307-310.—The question of the relation of eidetic imagery to general intelligence has received contradictory answers from various authors. The relation is further studied in this article. The Jaensch method of determining the presence of eidetic imagery was employed on 200 children ranging in chronological age from seven to sixteen years. 53 of these revealed eidetic imagery of various degrees. The Terman intelligence quotient was also scored for the members of the group. Zillig has reported the positive correlation of eidetic disposition and low intelligence. The authors here find that eidetic imagery was present among all of the quartiles of the intelligence quotient range, with approximately as many eidetics above as below the mean of the intelligence quotient scores.—J. W. Nagge (Chicago).

1978. Villamil, P. La perseveración en la edad del preaprendizaje. (Perseveration in the age of pre-apprenticeship.) *Med. d. trab. e hig. indus.*, 1933, 4, 251-270.—Perseveration has been looked upon as a modality of association different from ordinary association. It is particularly apparent in the behavior patterns of certain mental diseases. Pinard reports that 75% of an abnormal group showed unusually high or low perseveration scores, while an equal percentage of normal individuals showed a moderate perseveration score. The author, using nine tests of perseveration, tested 102 boys in the vocational guidance institute at Madrid. The age of the subjects ranged from twelve to sixteen years. The correlation between the global perseveration tests and attention was -.35; that between perseveration and intelligence was -.24. The results seem to indicate that perseveration is not a group factor.—J. W. Nagge (Chicago).

[See also abstracts 1972, 2097.]

#### NERVOUS SYSTEM

1979. Addison, W. H. F., & Donaldson, H. H. On the area of the sunken cerebral cortex as determined from the length and depth of selected sulci in three classes of human brains: scholars, hospital whites, hospital negroes. *J. Comp. Neur.*, 1933, 57, 429-453.—There was a slightly greater temporal area in the brains of scholars, as compared with those of the laymen examined. Also the sulci of scholars' brains were shallower. This was thought to be due to better development of the association system of fibers and for that reason regarded as a factor contributing

to the higher mental status of the scholar group.—C. P. Stone (Stanford).

1980. Bacq, Z. M., & Brouha, L. *Recherches sur la physiologie du système nerveux autonome. I. La transmission humorale des excitations nerveuses sympathiques. II. Le comportement des organes génitaux après énérvation sympathique.* (Studies on the physiology of the autonomic nervous system. I. Humoral transmission of sympathetic nerve stimulations. II. Behavior of the genital organs after sympathetic denervation.) *Arch. int. de physiol.*, 1932, 35, 163-195; 250-285.—(*Biol. Abst.* VIII: 795).

1981. Bean, J. W. An attempt to use chronaxie as a measure of excitability. *Amer. J. Physiol.*, 1934, 107, 275-283.—As chronaxy has been tentatively accepted as a measure of excitability it was thought that this method might be used in the study of certain problems concerning respiration. As a result of experiments it was concluded that the use of chronaxy as a measure of excitability is not feasible. The experiments show that chronaxy is not to be preferred over other methods of determining excitability. The changing of physiological conditions alter this measure as they do other measures of excitability; hence, it has no greater reliability than any other procedure.—C. Landis (N. Y. Psychiatric Institute).

1982. Chang, T. H., Gerard, R. W., & Shaffer, M. The *in vitro* respiration of nerve. *Proc. Nat. Acad. Sci.*, 1933, 19, 152-155.—Nerves kept in serum do not show as high or the same type of respiration as do nerves kept in unbuffered Ringer solution. Experiments reported here show that this difference has a bacterial causation.—W. N. Hallett (Cedar Crest).

1983. Dale, H. H. Nomenclature of fibers in the autonomic system and their effects. *J. Physiol.*, 1933, 80, 10P-11P.—Due to the fact that certain functions are controlled anatomically by the sympathetics but chemically by an acetylcholine-like substance, the author suggests that in order to distinguish between chemical function and anatomical origin we use the terms "adrenergic" and "cholinergic."—M. A. Rubin (Clark).

1984. Feldberg, W., & Gaddum, J. H. The chemical transmitter at synapses in a sympathetic ganglion. *J. Physiol.*, 1933, 80, 12P-14P.—The authors propose that the liberation of acetylcholine forms the normal mechanism by which the effects of preganglionic impulses pass synapses in the sympathetic ganglia.—M. A. Rubin (Clark).

1985. Herrick, C. J. The functions of the olfactory parts of the cerebral cortex. *Proc. Nat. Acad. Sci.*, 1933, 19, 7-14.—In exteroceptive adjustments the olfactory sense, lacking localization of its own, cooperates with other senses in various ways, including a qualitative analysis of odors and the discrimination between desirable and noxious stimuli, activation or sensitizing of the nervous system as a whole and of certain appropriately attuned sensorimotor systems in particular, with resulting lowered threshold of excitation for all stimuli and differential reinforcement or inhibition of specific types of response. At

all stages of cortical elaboration an important function of the olfactory cortex, in addition to participation in its own specific way in cortical associations, is to serve as a non-specific activator for all cortical activities. This is a generalized activity of primitive type acting on the neopallial cortex as a whole.—W. N. Hallett (Cedar Crest).

1986. Koblanck, A. *Die Nase als Reflexorgan des autonomen Nervensystems.* (The nose as a reflex organ of the autonomic nervous system.) Berlin: Urban & Schwarzenberg, 1930. Pp. 273. RM. 15.00.—(*Biol. Abst.* VIII: 792).

1987. Lashley, K. S., & Wiley, L. E. Studies of cerebral function in learning. IX. Mass action in relation to the number of elements in the problem to be learned. *J. Comp. Neur.*, 1933, 57, 3-55.—The authors trained 127 rats with cerebral lesions and 60 normal controls on mazes which differed primarily in number of alleys, all alleys being identical as to form and dimensions. The operated and control groups were subdivided into four equal groups, the first of which was trained on a simple maze with four culs-de-sac, the second on a maze with eight culs, the third on one with twelve culs, and the fourth on one with sixteen culs. Secondly, each of the groups was trained on an eight-blind maze similar to the others in design and placed in the same room, but with the direction of successive turns reversed and the longitudinal axis rotated 90°. When the records of the normal and operated groups were compared to determine the relative difficulty of the four mazes (differing only in number of alleys), the relative difficulty was found to be the same, although the operates were markedly inferior to the controls on all of the mazes. Upon comparing performances of the controls and operated animals on the eight-blind maze, secondarily learned by all, the authors concluded that there was a curvilinear relation between the extent of lesion and the amount of retardation in maze learning; that lesions in all parts of the cortex produced marked deterioration, but those in the auditory cortex appeared to be somewhat less deleterious than those in the motor, visual, and somesthetic regions; that both symmetrically and asymmetrically located lesions, with respect to the two hemispheres, contributed to the disability of the operated animals; and that there was no indication that small injuries of the thalamus, when combined with extensive cortical destruction, affected learning rate.—C. P. Stone (Stanford).

1988. Rosenblueth, A. Central excitation and inhibition in reflex changes of heart rate. *Amer. J. Physiol.*, 1934, 107, 293-304.—A quantitative estimate of central summation requires accurate determinations of both the afferent and the efferent nerve impulses. The variations of these two values may be temporal or spatial. It is simpler to control temporal variations than to quantitate spatial changes of the input. The methods available to estimate the number of nerve fibers activated by a given submaximal stimulus are involved and only approximate. On the contrary, varying rates of maximal stimulation



can be readily and accurately determined. For these reasons the present study made use of the cardiac reflexes in the study of central summation. The subsidence of central excitation and inhibition in these reflexes may continue for as long as 10 minutes. The maximum of reflex responses at equilibrium is a continuous function of afferent stimulation. The reflex output of the centers is directly proportional to the excitatory input. A chemical hypothesis in which nerve impulses are considered to give rise to quanta of excitatory or inhibitory substances is offered to explain the data. Both excitatory and inhibitory substances are destroyed at a rate proportional to their concentration. The rate of discharge of the impulse by the neuron is proportional to the concentration of the excitatory substance.—C. Landis (N. Y. Psychiatric Institute).

[See also abstracts 1904, 1917, 1943, 1958, 1992, 1995, 2010, 2011, 2014, 2020, 2023, 2039, 2050, 2140.]

#### MOTOR PHENOMENA AND ACTION

1989. Berlov, W. [The problem of time required for recovery of the organism.] *Sbornik Kazan. Inst. Nauch. Org. Truda*, 1931, 1, 1-11.—Critical discussion of methods of determining the time necessary for recovery of the organism after work. Methods were recommended at the first Russian Psychotechnical Congress.—H. E. Burr (Ohio State).

1990. Bonnardel, R., & Liberson, W. *Recherches sur la physiologie de l'homme aux hautes altitudes*. (Experiments on human physiology at high altitudes.) *Trav. Humain*, 1933, 1, 432-444.—Two subjects were examined at Paris and at the top of a high mountain in the Alps. With both simple auditory and visual reaction times no significant differences were found either in average time or in variability under the two situations. Furthermore, in a prolonged test in which about six reactions a minute were taken, the subject reading the chronoscope dial himself, the continued effort produced no perceptible differences at the two altitudes. Differences in basal metabolism and in the vascular system in the two situations are noted.—H. E. Burr (Ohio State).

1991. Britt, S. H. The relationship between transfer of learning and age of previous associations. *Amer. J. Psychol.*, 1934, 46, 113-116.—The present problem was planned to determine the relationship between transfer of learning and the age of the associations in a similar problem (maze-learning was used). Two stylus mazes were used. The 90 S's were divided into 3 groups. Group I learned Maze I, relearned it after 48 days, and immediately learned Maze II. Group II learned Maze I, and immediately learned Maze II. Group III learned only Maze II (control group). Total time, total errors, and total number of trials were used as the measures of learning. Results showed that Group I was far superior to Group III by every criterion; the chances were 99.9 in 100 that the difference was real. Group II was slightly superior to Group III; the chances were around 70 out of 100 that the difference was reliable. "The results

show that if the associations for a learning problem are of the same strength but are of unequal age, the older association is more subject to positive transfer to a second problem than is the younger association."—D. E. Johansen (Skidmore).

1992. Chudorogeva, A. T. [Influence of sympathetic nerve fibers on development of fatigue in skeletal muscles, stimulated by means of their motor nerves in process of degeneration.] *Fiziol. zh. U. S. S. R.*, 1932, 15, 287-299.—The amplitude of the contraction of the fatigued muscle was augmented by sympathetic excitation. The effect was most pronounced after three or four days of degeneration. The duration of the phenomena and the latent period was greater than in normal animals (frogs).—H. E. Burr (Ohio State).

1993. Crafts, L. W., & Gilbert, R. W. The effect of punishment during learning upon retention. *J. Exper. Psychol.*, 1934, 17, 73-84.—The aim of this experiment was to determine the effect upon the retention of a maze habit of the administration of electric shock as punishment for errors during the learning. Subjects were 100 college students divided into two groups of 25 men and 25 women each. Both groups learned the McGeech-Melton Medium Maze to the criterion of two of three successive trials without error. The experimental group received an electric shock whenever the stylus came in contact with the end of a cul-de-sac. After an interval of 1 week the maze was relearned, but without shock for either group. The results justify the conclusion that the punishment for error was advantageous not only for the learning of the maze but also for its retention.—H. W. Karn (Clark).

1994. Dunlap, E. Brachycephaly and glandular balance. *Science*, 1933, 78, 603-604.—It is suggested that brachycephaly is a result of glandular adaptation to an environment producing endemic goiter in individuals. This adaptation may take place over several generations.—R. H. Brown (Clark).

1995. Feldberg, W., Minz, B., & Tsudzimura, H. The mechanism of the nervous discharge of adrenalin. *J. Physiol.*, 1933, 80, 15P-16P.—According to the authors, the chemical agent of splanchnic stimulation of the suprarenal medulla has all the properties of an unstable choline ester with both "nicotine" and "muscarine" actions, the former being predominant.—M. A. Rubin (Clark).

1996. Frenay, N., Andre, M., & Rocour, A. Les variations de l'acide carbonique alvéolaire à l'effort musculaire et à l'entraînement. (Changes in alveolar carbonic acid with muscular effort and training.) *Trav. Humain*, 1933, 1, 385-388.—The general technique involved measuring the time required after a given exercise for the carbon dioxide expired to return to normal quantity. Daily practice on the muscular task tended to shorten this time, and the effect persisted somewhat after the daily practice had been discontinued.—H. E. Burr (Ohio State).

1997. Gelfan, S. The submaximal response of the single muscle fiber. *J. Physiol.*, 1933, 80, 285-296.—

Using single muscle fibers of the frog's sartorius, it is found that all the three types of responses that can be produced in the muscle as a whole by diffuse stimulation with constant current can be duplicated in the submaximal responses of the single fiber; and that the rapid responses to constant current in the single fiber have the time relations of a twitch. It is concluded that the all-or-nothing behavior which characterizes the action potential mechanisms is not a fundamental property of the contractile processes.—*M. A. Rubin* (Clark).

1998. Hellebrandt, F. A., Baernstein, H. D., & Hoopes, S. L. Studies in the influence of exercise on the digestive work of the stomach. IV. Its relation to the physicochemical changes in the blood. *Amer. J. Physiol.*, 1934, 107, 370-377.—"Exercise induces blood states identical with those resulting from other experimental manipulations known to be associated in themselves with similar gastric functional changes. In the exercising human being some mechanism other than one related to the resultant changes in the blood must be responsible for the alterations in gastric function. It seems to us that in the presence of the emotional stress and profound vascular readjustments which occur during strenuous exercise, physicochemical variations in the blood are concomitant rather than causal in their relation to alterations in gastric function."—*C. Landis* (N. Y. Psychiatric Institute).

1999. Hellebrandt, F. A., & Dimmitt, L. L. Studies in the influence of exercise on the digestive work of the stomach. III. Its effect on the relation between secretory and motor function. *Amer. J. Physiol.*, 1934, 107, 364-369.—"Simultaneous gastric acidity and motility observations made under conditions of rest and muscular activity show a striking parallelism in response. The findings suggest that the mechanisms controlling the secretory and motility change in response to a meal must be identical."—*C. Landis* (N. Y. Psychiatric Institute).

2000. Hellebrandt, F. A., & Hoopes, S. L. Studies in the influence of exercise on the digestive work of the stomach. I. Its effect on the secretory cycle. *Amer. J. Physiol.*, 1934, 107, 348-354.—"The effect of three different types of exercise on the gastric secretory cycle were studied by continuous intubation and fractional analysis. All types of exercise prolonged the digestive cycle as measured by the disappearance of starch, the delay in final emptying being more marked when the exercise followed the meal, and greater in proportion to the severity of the exercise. In general the effects of exercise on the gastric secretory cycle decreased as the activities were repeated."—*C. Landis* (N. Y. Psychiatric Institute).

2001. Hellebrandt, F. A., & Tepper, R. H. Studies on the influence of exercise on the digestive work of the stomach. II. Its effect on emptying time. *Amer. J. Physiol.*, 1934, 107, 355-363.—"The most interesting points demonstrated from a fluoroscopic study of the influence of exercise on gastric motility were first, that the most profound motor changes occur, like the secretory ones, during the first third of the digestive

cycle; and second, that like the secretory response the phase of inhibition may be followed by a period of augmented activity. It seems merely to stand still during the muscular activity or the period of immediate post-exercise recovery. Once readjustments occur, it picks up the work it must perform and proceeds as though nothing had happened, perhaps even more briskly than if exercise had not stimulated the general metabolism. In the end, exercise closely associated with meal-time does not seem detrimental as far as digestion is concerned."—*C. Landis* (N. Y. Psychiatric Institute).

2002. Hull, C. L. The concept of the habit-family hierarchy, and maze learning. Part I. *Psychol. Rev.*, 1934, 41, 33-54.—Two major types of habit are distinguished, one involving a divergent, the other a convergent associative mechanism. The latter accounts for automatic habit transfer. A combination of the two mechanisms gives rise to the habit-family hierarchy, i.e. a group of habit sequences, all of which may be initiated by a particular stimulus and terminated by a particular reaction. Certain maze phenomena are explained by the concept. "When one member of a habit-family hierarchy has attained a goal in an objectively novel situation, the learning thus acquired is transferred without specific practice to the other members of the hierarchy." Several animal studies are interpreted on this basis.—*A. G. Bills* (Chicago).

2003. Kahn, J. L., & Milovidova, M. K. [Experiments on the respiratory exchange in the course of professional muscular work. Variations in the oxygen saturation of venous blood during return to normal.] *Fiziol. zh. U. S. S. R.*, 1933, 16, 155-157.—The maximum saturation occurs about three minutes after the end of the two-minute work period, when the coefficient of oxygen consumption is smallest.—*H. E. Burt* (Ohio State).

2004. Kojima, S., Shinmen, M., Hirayama, T., Kobayashi, F., Oana, M., Oka, A., Mikami, T., & Miyaji, K. Physiological influence of athletic games on champions. *Jap. J. Exper. Med.*, 1932, 10, 499-508.—(*Biol. Abst.* VIII: 824).

2005. Matusima, S. Oxygen consumption during mental work. *Rep. Inst. Sci. of Labour*, Kurasaki, Japan, 1932, 8. Pp. 12-17 subjects, 15-36 years old, were used. The mental work consisted of adding or listening to scientific papers. The women consumed less oxygen than the men.—*K. F. Muenzinger* (Colorado).

2006. McCloy, C. H. The measurement of athletic power. New York: Barnes, 1932. Pp. 192. \$3.00.—*R. R. Willoughby* (Clark).

2007. Mohnkopf, W. Zur Automatisierung willkürlicher Bewegungen. (The automatization of voluntary movements.) *Zsch. f. Psychol.*, 1933, 130, 235-299.—Observers were trained in two discrete sets of voluntary performances, (1) to make certain foot movements in response to tactual stimulation of index or middle finger of either hand, and (2) to discover the identical elements in two simultaneously



- presented sets of geometrical figures. Each performance was repeated until it had become automatic, and then both performances were required at the same time. It was found that when the performances were sufficiently simple both could be carried out at the same time. The automatization of voluntary movements was found to be characterized by (1) a reduction in conscious motivation, (2) a reduction in the degree of consciousness accompanying the movements, (3) the possibility of the addition of a second performance to be carried out simultaneously, and (4) greater simultaneity, purity and speed.—*R. B. MacLeod* (Swarthmore).
2008. Neuhaus, W. Untersuchungen zur Motorik. I. Ueber Ganzheitsbildung im Bereich einfacher motorischer Abläufe. (Studies of action. I. The formation of totalities in the field of simple motor processes.) *Zsch. f. Psychol.*, 1933, 130, 145-171.—Subjects were required to make sequences of equally forceful and equally spaced arm movements, under conditions which rendered possible a graphic representation of both force and interval. It was found that equally forceful movements could be made only within a certain limited range of intervals. The determining factor here was configurational. If the intervals were too long each movement represented a discrete performance. If they were too short disturbing physiological factors, e.g. fatigue, entered in. Within the optimal range the intervals grouped themselves into natural wholes, each of which represented a unitary volitional act.—*R. B. MacLeod* (Swarthmore).
2009. Rijlant, P. Duality of the mechanisms of tonus and contraction in striated muscle. *J. Physiol.*, 1933, 80, 20P-21P.—During hypnotic sleep in mammals, it is found that the contraction waves of striated muscle completely disappear, while the tonus waves persist. Curare in small amounts completely abolishes the tonic waves, while the contraction waves are temporarily maintained. Action currents led off from the central end of a motor nerve show the same characteristics as the two types of waves (tonus and contraction). From this and other evidence, it is concluded that there is a duality of the mechanisms of tonus and contraction, probably at the neuromuscular junction.—*M. A. Rubin* (Clark).
2010. Samojloff, A. Die Rigidität und Plastizität der Muskeln des decerebrierten Tieres. (Rigidity and plasticity of muscles in decerebrate animals.) Berlin: Ost-Europa-Verlag, 1929. Pp. 10. RM. 1.50.—(*Biol. Abst.* VIII: 811).
2011. Schemann, H. Ergographische Studien an Gesunden und Hirnverletzten nach der fussergographischen Methode O. Löwensteins. (Ergographic studies on normals and brain-injured by the foot-ergography method of O. Lowenstein.) Bonn: Kubens, 1933. Pp. 20.—*R. R. Willoughby* (Clark).
2012. Schneider, E. C. Physiology of muscular activity. Philadelphia: Saunders, 1933. Pp. 401.—A general review of the nature of muscular activity, including chapters on coordination of the activities of bodily exertion, the effects of frequent and regular exercise, fatigue and staleness, and tests of physical fitness.—*W. S. Hunter* (Clark).
2013. Schneider, K. C. Moderne Instinktlehre. (Modern instinct theory.) *Biol. Zentbl.*, 1933, 53, 629-633.—The psychophysical field of the animal should be interpreted in a manner corresponding to that used in the interpretation of inorganic electromagnetic fields.—*E. R. Hilgard* (Stanford).
2014. Seo, A. Studies on the nervous regulation of the ciliary movement. *Jap. J. Med. Sci.* III. *Biophysics*, 1931, 2, 47-75.—(*Biol. Abst.* VIII: 812).
2015. Takenaka, S., Vasaki, S., Mandai, H., & Saito, C. Investigation into the influence of bodily exercise on the function of the circulatory system. VII. The wave changes in the electrocardiograms of various kinds of athletes. (Before and after certain test running.) *Acta Scholae Med. Univ. Imp. Kioto*, 1932, 14, 345-352.—(*Biol. Abst.* VIII: 851).
- [See also abstracts 1932, 1961, 1981, 1987, 1988, 2031, 2039, 2041, 2042, 2043, 2048, 2131, 2143, 2244, 2245, 2251, 2355, 2364, 2365.]

## PLANT AND ANIMAL BEHAVIOR

2016. Bellisai, I. Ricerche sulle reazioni fototassiche di *Artemia salina*. (Researches on the phototactic reactions of *Artemia salina*.) *R. Comitato Talassografico Ital., Mem.*, 1929, 165, 1-22.—(*Biol. Abst.* VIII: 772).
2017. Bierens de Haan, J. A. Neuere Untersuchungen über die höheren Formen der tierischen Intelligenz. (Recent studies of the higher forms of animal intelligence.) *Verhandl. Dtsch. Zool. Gesellsch.*, 1933, 39-66.—A review of about 60 references divided into studies of spatial, temporal and causal relationships.—*K. F. Muensinger* (Colorado).
2018. Blankenagel, F. Untersuchungen über die Grosshirnfunktionen von *Rana temporaria*. (Investigations on the cerebral functions of *Rana temporaria*.) *Zool. Jahr. Abt. allg. Zool. u. Physiol. Tiere*, 1931, 49, 271-322.—(*Biol. Abst.* VIII: 796).
2019. Blum, H. F., & Fox, D. L. Light responses in the brine flagellate *Dunaliella salina* with respect to wave length. *Univ. Calif. Publ. Physiol.*, 1933, 8, 21-30.—(*Biol. Abst.* VIII: 773).
2020. Bowen, R. E. The cupula of the membranous labyrinth. *J. Comp. Neur.*, 1933, 58, 517-539.—The cupula of the membranous labyrinth was studied in the common catfish, an animal whose broad flat head greatly facilitates the necessary dissection. Numerous variations were found in size, shape, position, and apparent structure of the cupula in preparations hardened by the usual fixatives, but, in fresh specimens, it was not possible to find any characteristic, organized material (the cupula of fixed preparations) in the ampullar space above the crista. Between the sensory part of the crista and the opposite wall was found what appears to be a secretory product, consisting of minute shining particles; these are coagulated upon the crista in the fixed preparations and presumably constitute the structure heretofore known as the cupula, a structure which does not exist in



the living ampulla. The author thinks that there is still a possibility that the cupula-forming substance, while in its natural state, may stimulate the sensory hairs as a result of displacement from its usual resting position. No evidence of definite currents within the membranous labyrinth were found, however.—C. P. Stone (Stanford).

2021. Buytendijk, F. J. J., & Fischel, W. *Methoden zur psychologischen Untersuchung wirbelloser Tiere*. (Methods for the psychological study of invertebrates.) *Abderhaldens Hand. d. biol. Arbeitsmeth.*, Section VI, Part D. Pp. 339-419. Berlin-Vienna: Urban & Schwarzenberg, 1933.—The last of the monographs in Abderhalden's *Handbook*, Part D, which is entitled *Methods of Comparative Psychology*.—K. F. Muenzinger (Colorado).

2022. Coronios, J. D. *Development of behavior in the fetal cat*. *Genet. Psychol. Monog.*, 1933, 14, 283-386.—After giving a review of the literature and data on housing, feeding, care and operative technique which should be valuable to any one doing animal research, the author gives the results of observations and motion-picture records of the embryos and fetuses of 32 pregnant cats. The behavior of the fetuses "progresses from a diffuse, massive, variable, relatively unorganized state to a condition where many of the reactions are more regular in their appearance, less variable, better organized, and relatively individualized." Behavior seems to progress along a cephalocaudal course. "Behavior develops in each limb from a proximal to a distal point." The bibliography contains 74 citations.—F. M. Teagarden (Pittsburgh).

2023. Detwiler, S. R. *Experiments upon the segmentation of spinal nerves in salamander embryos*. *Proc. Nat. Acad. Sci.*, 1933, 19, 22-29.—Lehmann has concluded that the typical segmentation of spinal ganglia and nerve roots occurs only when there is a normal segmental arrangement of the adjacent mesoderm, and that disturbances in the latter are accompanied by abnormal development of the former. Similar experiments by the author upon *Amblystoma* embryos have supported Lehmann's view regarding the matter of segmentation, in spite of certain differences in results regarding other phases of spinal ganglion development. Three new series of experiments are discussed with the aid of six figures.—W. N. Hallett (Cedar Crest).

2024. Elliott, M. H. *The effect of hunger on variability of performance*. *Amer. J. Psychol.*, 1934, 46, 107-112.—The problem of the present study was to determine whether the variability of a rat's performance in a multiple-choice box will change when any performance is rewarded. The apparatus consisted of an entrance box with 5 alleys leading from it. The rat was permitted to enter any alley, and received food on reaching the end of it. Each animal was given 2 trials (not in succession) per day, and was permitted to eat for 2½ min. at the end of each trial. After the day's performance the animal was given additional food to make up the daily ration, and four different degrees of hunger were induced by

feeding the animals four different amounts. It was found that when the animal was sufficiently hungry it tended to select some particular path repeatedly, and later decreasing the amount of hunger induced in the animal did not produce any greater variability. It is concluded that strong motivation not only decreases variability of performance, but tends to fixate such performance.—D. E. Johannsen (Skidmore).

2025. Fischel, W. *Methoden zur psychologischen Untersuchung der Wirbeltiere*. (Methods for the psychological study of vertebrates.) *Abderhaldens Hand. d. biol. Arbeitsmeth.*, Section VI, Part D. Berlin-Vienna: Urban & Schwarzenberg, 1933. Pp. 223-338.—This monograph deals with methods of studying discrimination, perception of relations, learning, and insight in vertebrates.—K. F. Muenzinger (Colorado).

2026. Fischel, W. *Über bewahrende und wirkende Gedächtnisleistung*. (Concerning verified and effective memory performance.) *Biol. Zentbl.*, 1933, 53, 449-471.—*Nereis virens* (clam worms) learned to crawl to one side of a Y-form maze. It was not possible to teach them to choose either right or left on the basis of a discrimination between white mussel shells and dark variegated sandstone. *Lacerta viridis* (lizards) learned the way around a fence to food. If the food was not visible at the end of the detour, the animal forgot the goal and ran off in another direction. Guinea pigs participated in three experiments. In the first, the animals chose between the more desirable leaves of yarrow or grass, and the less desirable leaves of plantain. The choice between them was made only when the leaves were visible close together, and little memory was displayed. In a second experiment, guinea pigs learned to pull in leaves attached to strings. They failed to distinguish, however, between strings which were tied to leaves and other strings in similar positions not connected with leaves, although the whole situation was plainly visible. In the final experiment a door was arranged which could be flapped open or shoved to one side. The animals learned which of the two methods resulted in food, but if one method resulted in less desirable food than the other they did not learn to select the method leading to the more desirable goal.—E. R. Hilgard (Stanford).

2027. Gundlach, R. H. *The visual acuity of homing pigeons*. *J. Comp. Psychol.*, 1933, 16, 327-342.—The pigeon's threshold for discrimination of horizontal versus vertical lines was at approximately 23 to 29 seconds. Even with the lines subtending large visual angles, however, discrimination was never highly accurate. Human subjects tested under similar conditions possessed an acuity about half that of the pigeons. "The theories of homing that ascribe good vision to pigeons seem," according to the author, "well-grounded in fact." Bibliography.—N. L. Munn (Pittsburgh).

2028. Halik, L. *Ueber die rhythmischen Bewegungen der in Bernsteinschnecken parasitierende Sporozystenschlücke von Leucochloridium macrostomum*

Rud. (On the rhythmic movements of the sporocyst tubes in *Leucochloridium macrostomum* Rud parasitic on amber snails.) *Zsch. f. vergl. Physiol.*, 1931, 14, 462-478.—A. B. Hunter (Clark).

2029. Hecht, S., & Wald, G. The influence of intensity on the visual functions of *Drosophila*. *Proc. Nat. Acad. Sci.*, 1933, 19, 964-972.—"The intensity discrimination and visual acuity of *Drosophila* may be measured at different illuminations by means of its reflex response to a moving visual pattern. Its visual acuity varies with log I as in man. The maximum visual acuity is 1-1000 of the maximum of the human eye. The intensity discrimination of *Drosophila* is also poor. At low illuminations two lights are discriminated only when the ratio of their intensities is nearly 100. An explanation of the variation of visual acuity is given in terms of the variation in number of elements functional in the retinal mosaic at different intensities."—W. N. Hallett (Cedar Crest).

2030. Honzik, C. H. Maze learning in rats in the absence of specific intra- and extra-maze stimuli. *Univ. Calif. Publ. Psychol.*, 1933, 6, 99-144.—Blind rats learned to traverse an elevated maze the units of which were interchanged from trial to trial. The learning curve dropped slowly and irregularly. To test for the presence of extra-maze cues the maze was rotated. The error scores increased, but the increase is attributed to factors other than extra-maze stimuli. When a short cut was introduced as a control of kinesthesia the results were inconsistent. Some short cuts led to a significant increase in error scores; most of them did not. When the animals were "put on" the maze at some distance from the entrance there was a marked increase in errors. The author suggests that the rat may need the run from the entrance. In a further experiment with a different type of maze the author attempted to determine why some types of short cut lead to increased error scores and others do not. After 11-13 days of training without interchange of the maze units, during which the learning curve rapidly approached a minimum, the units were suddenly interchanged. The problem seemed like a new one. One group of rats manifested more errors than in the initial trial. With continued interchange of units the curve again fell, but slowly and irregularly. Finally controls similar to the above were instituted with somewhat comparable results. Analysis of the various controls leads the author to conclude that intra-maze stimuli are important in the maze learning of blind rats but not essential. Extra-maze stimuli are regarded as non-effective. It is claimed that short-cut runs indicate the inadequacy of the kinesthetic hypothesis. These facts are explained by the rat's ability to apprehend spatial relations.—N. L. Munn (Pittsburgh).

2031. Howard, E., & Grollman, A. The effect of extracts of the adrenal cortex on growth and the reproductive system of normal rats, with particular reference to intersexuality. *Amer. J. Physiol.*, 1934, 107, 480-489.—"A moderate excess of the hormone of the adrenal cortex has no appreciable influence on

the size of the gonads, the oestrous cycle, or the course of gestation in the rat. The growth of normal young rats is not appreciably influenced by a moderate excess of the hormone of the adrenal cortex. No causal relation of the adrenal cortex to intersexuality has been detected with the methods employed."—C. Landis (N. Y. Psychiatric Institute).

2032. Hulpieu, H. R. The effect of oxygen on *Amoeba proteus*. Baltimore: Johns Hopkins Press, 1931. Pp. 42. \$0.42.—(*Biol. Abst.* VIII: 777).

2033. Ilse, D. Zur "Formwahrnehmung" der Tagfalter. I. Spontane Bevorzugung von Formmerkmalen durch Vanessen. (On the "form perception" of the butterfly. I. Spontaneous preference for particular features of form by *Vanessa*.) *Zsch. f. vergl. Physiol.*, 1932, 17, 537-556.—*Argynnis* males failed to give the mating response to paper models of females or to females behind glass, but responded only to the actual flying female. However, males of *Argynnis* and of *Vanessa* gave the feeding response to female models, to paper flowers, and to a variety of forms. Pairs of stimuli were presented, the members differing in a certain respect, and the spontaneous choices of the insects were recorded. Significant preferences were found for the member of larger area, but this feature was less important than was variability of contour or wealth of articulation within the figure. Colored figures were generally preferred, and the importance of the contour feature at the expense of area was found to be dependent upon the influence of color.—T. C. Schneirla (New York University).

2034. Kosmin, N. P., & Komarow, P. M. Über das Invertierungsvermögen der Speicheldrüsen und des Mitteldarms von Bienen verschiedenen Alters. (Concerning the inverting power of the salivary glands and of the middle intestine in bees of different ages.) *Zsch. f. vergl. Physiol.*, 1932, 17, 408-422.—The salivary glands function as sugar inverting organs at the time the bee emerges, and the function apparently increases in importance with age so far as these glands are concerned. The middle intestine apparently is not specialized in the inversion of sugars.—T. C. Schneirla (New York University).

2035. Kuo, Z. Y. Ontogeny of embryonic behavior in Aves. VI. Relation between heart beat and the behavior of the avian embryo. *J. Comp. Psychol.*, 1933, 16, 379-384.—The author finds a correlation between the activity of the embryo and its pulse rate. The highest pulse rate occurs between the sixth and tenth days of incubation, which is also the period of greatest activity.—N. L. Munn (Pittsburgh).

2036. Loucks, R. B. Preliminary report of a technique for stimulation or destruction of tissues beneath the integument and the establishing of conditioned reactions with faradization of the cerebral cortex. *J. Comp. Psychol.*, 1933, 16, 439-444.—By burying a collodion-coated coil beneath the skin and leading insulated wires from it to a point of the brain, it was possible to stimulate tissues without bringing wires through the skin. The stimulation was achieved merely by laying the primary of an inductorium on the skin adjacent to the subcutaneous coil. Using



this technique with dogs, the author tried to obtain conditioned reactions to a buzzer. No conditioning was obtained when faradization of a motor area of the brain was used as the unconditioned stimulus. Conditioning was readily obtained in the same animals with electrical stimulation of the leg. Other uses of the technique are suggested.—N. L. Munn (Pittsburgh).

2037. Matthes, E. Weitere Geruchsdressuren an Meerschweinchen. (Further olfactory training experiments on guinea pigs.) *Zsch. f. vergl. Physiol.*, 1932, 17, 464-490.—Utilizing the method of training which previously had shown bromstyrol to be detectable by guinea pigs in concentrations of 1:100,000, long-continued training reduced this value to 1:10,000,000 for bromstyrol and for nitrobenzene. Using comparable methods, the threshold value for the human subject when bromstyrol and nitrobenzene were mixed in mush was 1:10,000. Cutting the nerve supply of the organ of Jacobson in the guinea pig did not interfere with olfactory discriminations formed in the experiments, nor did it seem to interfere with the male's responses to the female odor.—T. C. Schneirla (New York University).

2038. Molitor, A. Neue Beobachtungen und Experimente mit Grabwespen. IV. (New observations and experiments with sand-wasps. IV.) *Biol. Zentbl.*, 1933, 53, 496-512.—Observations on *Phaenanthus triangulum* F., and on *Ammophila heydeni*. The method of attacking prey; differentiation between the acceptable and the non-acceptable caterpillars; combat between individuals; atypical behavior.—E. R. Hilgard (Stanford).

2039. Nicholas, J. S. The correlation of movement and nerve supply in transplanted limbs of *Amblystoma*. *J. Comp. Neur.*, 1933, 57, 253-283.—The right fore limbs of *Amblystoma* were transplanted on the dorsal midline region of the flank in individuals of a different species; also, they were transplanted to the eye region and to the dorsal midline and head regions in individuals of the same species. These provided for detailed correlation of movement in the transplanted limbs with the nerve patterns and nerve elements available and with the normality of limb musculature. Observations were made during the larval stages and for a short time after metamorphosis. Fore limbs transplanted to non-limb regions of the body displayed definite functions, which varied from individual to individual according to the nerve distribution, source of the innervation (whether from one or from several nerves which normally innervate different musculature), the amount of muscular degeneration, and the intermingling of muscular fibers of the limb and trunk. If the spinal cord was sectioned, preparatory to transplantation, and the limb so placed that it obstructed regeneration of the severed parts, fiber cables from the ascending and descending tracts of the cord entered the limb and caused movements similar to those normally occurring from impulses over the spinal or cranial nerve trunks. In this case the greatest amount of movement occurred if transplants were made in the region of the medulla, whence the greater number of motor fibers passed

into the limbs. Eye-muscle nerves rarely grow into limbs that are transplanted in the eye region because of damage to the orbital parts done during the operation. However, a few specimens with good innervation from ocular nerves were found, and in such cases, the limb actions were correlated with contractions of the eye muscles of the opposite side. The author found no support for Weiss' resonance theory. On this point he says, "These results are interpreted as being due to the coordination of nerve responses in the central nervous system rather than their selection by the peripheral portion of the system, as postulated in the resonance theory of Weiss.—C. P. Stone (Stanford).

2040. Omwake, L. The influence of barbital on the activity and learning of white rats. *J. Comp. Psychol.*, 1933, 16, 317-325.—Activity was measured in terms of the number of errors in the maze per minute, learning in terms of the time taken to reach the reward. The doses of barbital, which were intraperitoneally injected, consisted of 100 mgm. per kilogram of body weight. These injections were given on alternate days for four and one-half months. The activity of the injected rats was slightly lower than that of normal controls. There was no difference in the ability of injected and control rats to reach the reward within 30 minutes. The number of injected rats reaching the reward in 5 minutes was lower than that of the controls. In terms of time to complete the problem the injected rats were inferior. It is believed that this inferiority is physical rather than mental. The author, upon the basis of these results, concludes that continued use of barbital, even in large doses, will lead to no chronic physical or mental defects. Bibliography.—N. L. Munn (Pittsburgh).

2041. Parker, G. H. The color changes in the sea-urchin *Arbacia*. *Proc. Nat. Acad. Sci.*, 1931, 17, 594-596.—R. R. Willoughby (Clark).

2042. Parker, G. H. Effects of acetylcholine on chromatophores. *Proc. Nat. Acad. Sci.*, 1931, 17, 596-597.—R. R. Willoughby (Clark).

2043. Petzold, H. Der Schluckreflex nach elektrischer Reizung der Pharynxschleimhaut (nach Untersuchungen beim Hund). (The reflex of deglutition after electric stimulation of the pharyngeal mucosa, on the basis of experiments with dogs.) Ellefeld i. Vogtland: J. Schrader, 1933. RM. 1.—The experiments were made with a new method of operative removal of the velum palatinum. The following results were obtained: (1) The region in which it is easiest to obtain the reflex extends from  $\frac{1}{2}$  cm. above the arytenoid cartilages to  $\frac{1}{2}$  cm. above the axis of the buccal cavity, both medially and laterally. (2) The number of strokes necessary for the stimulation depends upon the frequency of the stimulus. (3) The lowest number of effective stimuli is 6.6 per second. (4) The shortest duration of stimulus was found to be .08 sec. when the frequency is 117 per sec. (5) At the distance of  $8\frac{1}{4}$  cm. on the inductorium the reflex was obtained. (6) The minimal reflex time was .13 sec.—H. Petzold (Hammerbrücke i. Vogtland).



2044. Pincus, G., Sterne, G. DeR., & Enzmann, E. The development of temperature regulation in the mouse. *Proc. Nat. Acad. Sci.*, 1933, 19, 729-733.—The rate of cooling of living mice aged 2 to 24 days is always slower and the rate of warming always faster than that of dead mice of the same age and weight. Two phases of temperature regulation, the metabolic and the regulatory, are discussed.—W. N. Hallett (Cedar Crest).
2045. Przibram, H. Einfluss von Infundin- und Adrenalindosierung auf die Färbung unserer Frösche, *Rana esculenta* L., *R. fusca* Rösel, *Hyla arborea* L. (Zugleich: Ursachen tierischer Farbkleidung XII.) (The influence of pituitin and of adrenalin dosage on the coloration of our frogs, *Rana esculenta* L., *R. fusca* Rösel, *Hyla arborea* L. Continuing: The fundamentals of animal coloration XII.) *Zsch. f. vergl. Physiol.*, 1932, 17, 565-573.—For these frogs pituitin injection has about the same effect as it has on the minnow and other fishes. Up to a dosage of .0001-.00001 c.c. darkening (melanophore expansion) is produced, and for larger doses the skin pales (melanophore contraction). Injection of .00025 c.c. adrenalin may bring darkening, but the effect on appearance differs according to the species, and changes in time. While further work is necessary, it is certainly not adequate to say that adrenalin typically has a paling effect.—T. C. Schneirla (New York University).
2046. Przibram, H. Rolle der Gesichtswahrnehmungen für den Farbwechsel der Frosche *Rana esculenta* L., *R. fusca* Rösel und *Hyla arborea* L. (Zugleich: Ursachen tierischer Farbkleidung XIII.) (The importance of visual perception for the coloration changes of the frogs *Rana esculenta* L., *R. fusca* Rösel and *Hyla arborea* L. Continuing: The fundamentals of animal coloration XIII.) *Zsch. f. vergl. Physiol.*, 1932, 17, 574-590.—The frogs were introduced into visually uniform surroundings, an attempt being made to control other conditions, and their appearance studied over a period of time. The *Rana* species *fuscus* and *esculenta* changed in essentially the same manner, becoming lightest in white and in yellow surroundings (assuming a yellow tinge in the latter case) and darkest in black surroundings. These changes were attributed to the effect of the light that entered the eyes. Tree-frogs (*Hyla*) reacted differently, since the majority of these animals remained grass-green under most conditions, and became dark only in black surroundings. Not all animals changed in the latter circumstance, and especially was this true in the autumn. Other notable exceptions appeared among the males. Changes produced by rough crepe paper seemed attributable to the independent effect of contact.—T. C. Schneirla (New York University).
2047. Raignier, A. Introduction critique à l'étude phonique et psychologique de la stridulation des fourmis. (Critical introduction to the phonetic and psychological study of the stridulation of ants.) *Broteria, Sér. de scienc. nat.*, 1933, 2, 51-82.—The author presents his researches at the Zoological Institute of the University of Louvain upon the nature of stridulation of ants, viz., "an audible sound of a special character given 'intentionally' by the ants under given conditions and by means of an organ especially differentiated for this use." From the psychological point of view, the author thinks "the stridulation is ordinarily used as a cry of alarm and as a general means of excitation in case of danger." The perception of auditory and other vibrations is well established, but it is not certain that the reception is by means of a genuine auditory organ. The role of stridulation in orientation is still hypothetical.—R. Nihard (Liège).
2048. Richter, C. P. The effect of early gonadectomy on the gross body activity of rats. *Endocrin.*, 1933, 17, 445-450.—Gans reported that animals castrated at the age of 1-10 days became as active as normal controls, whereas other investigators have found that castration in either sex reduces activity to a permanent low level. In the present study castration of either male or female animals 1-10 days after birth limited activity so that the greatest amount shown by them subsequently was less than one-fifth that of the normal controls. The records published by Gans for "normal" animals show that his controls were much less active than similar animals used by other investigators.—D. J. Ingle (Minnesota).
2049. Rundquist, E. E. Inheritance of spontaneous activity in rats. *J. Comp. Psychol.*, 1933, 16, 415-438.—Using revolving drums and selective breeding, it was discovered that individual differences in activity are largely inherited. Activity is partially dominant to inactivity. The inactive strain is more homozygous for activity than the active. Females manifest greater activity than males. The inactive strain has more sterile matings and smaller litters, and takes longer to reproduce. The correlations between activity and learning and activity and initial weight were found to be negligible. Bibliography.—N. L. Munn (Pittsburgh).
2050. Scharrer, E. Die Sekretproduktion im Zwischenhirn einiger Fische. (Untersuchungen über das Zwischenhirn der Fische III.) (The production of secretions in the midbrain of some fishes. Experiments on the midbrain of fishes III.) *Zsch. f. vergl. Physiol.*, 1932, 17, 491-509.—The nucleus magnocellularis praepopticus and the nucleus lateralis tuberis of the perch midbrain include secretory cells. In *Phoxinus* and *Fundulus* only the former nucleus has a secretory function. These secretions are associated with the hormonal control of skin coloration in fishes.—T. C. Schneirla (New York University).
2051. Schmidberger, G. Über die Bedeutung der Schnurrhaare bei Katzen. (On the significance of the vibrissae in cats.) *Zsch. f. vergl. Physiol.*, 1932, 17, 387-407.—The vibrissae are associated with very sensitive contact receptors, normally supplementing vision and almost taking its place in darkness. In darkness, cats without vibrissae behaved as did blinded vibrissaeless cats, frequently colliding with objects. They usually stopped near objects that were clumsily contacted with the head, unlike normal cats, which in darkness were able to evade objects skilfully

and pass onward. In darkness the cats deprived of vibrissae moved along a runway much less precisely than did normals, were slower, and much less readily found an opening in a partition that opposed their passage. There were individual differences in all of these points, and most of the experimentals improved somewhat with time. Normals found pieces of fish much more accurately than did cats that lacked vibrissae. This fact suggests the manner in which contact sensitivity may partially compensate for the negligible role of olfaction in spatial orientation.—*T. C. Schneirla* (New York University).

2052. *Schneider, K. C. Moderne Beurteilung der tierischen Intelligenz.* (Modern critical examination of animal intelligence.) *Biol. Zentbl.*, 1933, **53**, 651-654.—A discussion mentioning the points of view of Kohler, Bühler, and Driesch. Animals do not have true intelligence. They may be said to have observational intelligence (*Anschauungsintelligenz*) but not thinking intelligence (*Denkintelligenz*).—*E. R. Hilgard* (Stanford).

2053. *Schneirla, T. C. Some comparative psychology.* *J. Comp. Psychol.*, 1933, **16**, 307-315.—"Centrifugal swing" rather than "forward-going tendency" is regarded as the chief determiner of initial maze activity. A maze pattern is presented which takes cognizance of "centrifugal swing" in such a manner as to render the various units of equal initial difficulty. In reaching his conclusions, the author discusses some of his data on ants as well as Dashiell and Bayroff's work on direction orientation.—*N. L. Munn* (Pittsburgh).

2054. *Shepard, J. F. Higher processes in the behavior of rats.* *Proc. Nat. Acad. Sci.*, 1933, **19**, 149-152.—The author briefly describes maze experiments which are concerned with what he thinks must be called reasoning in the rat. They involve giving adaptive reactions, where such reactions can come about only from combination, in advance of the reaction, of factors from separate experiences, and where such separate experiences involve essentially contradictory or differing elements which must be functionally recognized.—*W. N. Hallett* (Cedar Crest).

2055. *Stier, J. B. On the temperature-regulatory function of "spontaneous" activity in the mouse.* *Proc. Nat. Acad. Sci.*, 1933, **19**, 725-729.—The total amount of "spontaneous" muscular activity of two-day-old albino mice increases as the animal's internal temperature is raised from 16° to 22° C. and then steadily decreases at successively higher temperatures. It is suggested that there is exhibited a kind of regulation of temperature by the young mouse in the range of internal temperatures above 25°. In this upper temperature range a decrease in air temperature results in an increase in the amount of muscular activity and an increase in the heat production.—*W. N. Hallett* (Cedar Crest).

2056. *Thomas, M. La question philosophique et scientifique de l'intelligence animale.* (The philosophic and scientific question of animal intelligence.) *Scientia*, 1933, **27**, 323-334.—The conflicting ideas of the evolutionists and the spiritualistic philosophers

give two different points of view regarding the common characters of man and animals. According to the religious philosophers, an immortal soul was given only to man, by the Creator. The supposition is that free will is necessary for intelligence, and that animals cannot have free will. The question what intelligence is is discussed, and evidence for the existence of a type of animal intelligence is presented. The final distinction is made that the intelligence of animals has no other point than to carry out the needs of the animal, while in man intelligence satisfies more than his needs and gives him a certain independence of instinct.—*L. S. Selling* (Institute for Juvenile Research).

2057. *Uexküll, J. v. Das Führhundproblem.* (The problem of the dog used as a guide.) *Zsch. f. angew. Psychol.*, 1933, **45**, 46-53.—The author criticizes the methods used by a Potsdam agency for the training of dogs to act as guides for blind persons. The result of these rather mechanical methods is that the dogs lose their independence and initiative and react only to those obstacles and dangers which they have met during the training period. The author also indicates the way in which Sarris trains his dogs so that they remain in a certain sense self-reliant.—*K. F. Muenzinger* (Colorado).

2058. *Walls, G. L. The retinal visual cells in man and fresh-water fish.* *Brit. J. Ophthalmol.*, 1933, **17**, 758-761.—A criticism of M. S. Mayou's paper upon the same subject, which appeared in the *British Journal of Ophthalmology*, 1933, **17**, 477-490.—*R. J. Beitel, Jr.* (Clark).

2059. *Walls, G. L., & Judd, H. D. The intra-ocular colour-filters of vertebrates.* *Brit. J. Ophthalmol.*, 1933, **17**, 705-725.—The present paper is devoted to the consideration of special points with reference to the nature of the pigment involved in each of the following types of color-filter: oil-droplets, yellow lenses, yellow corneae, maculae luteae and retinal capillaries. All oil-droplet pigments appear to be carotinoids. The development of droplet colors in general affords no sure clue to the phylogeny of the colors, and supports no theory as to their function. The chemical nature of the pigment of yellow lenses seems to be unique; it is not a carotinoid and is not identical with the pigment of cataractous lenses, which is believed to be a true melanin. The pigment in yellow corneae is probably ichthyocarotin. The macular pigment is tentatively interpreted as a local deposit of carotinoid. No observations were made upon retinal capillary networks. An extensive bibliography is appended.—*R. J. Beitel, Jr.* (Clark).

2060. *Welsh, J. H. Photoc stimulation and rhythmical contractions of the mantle flaps of a lamellibranch.* *Proc. Nat. Acad. Sci.*, 1933, **19**, 755-757.—The author shows that the rhythmical contraction of the mantle flaps of a lamellibranch ceases in the absence of light. This casts doubt upon Ortmann's conclusion that the rhythmical contraction is for the purposes of aeration of the glochidia during the breeding season.—*W. N. Hallett* (Cedar Crest).



2061. Weyrauch, W. K. Die Aufhäufungstendenz. (The concatenation tendency.) *Biol. Zentbl.*, 1933, 53, 530-540.—The tendency for conduct elements to be united in a harmonious sequence is illustrated from the field of insect behavior, as, for example, the sequences of running and hopping of *Salix*, the successive paths of bumble-bees (both *Bombus lapponicus* and *Bombus terrestris*) crawling toward one of two lights, and the lengths of successive rest pauses between periods of activity of the ground-beetle (*Broscus cephalotes*). All show later activity to be modified in relation to that which has gone before in accordance with some principle of order.—E. R. Hilgard (Stanford).

2062. Wiesner, B. P., & Sheard, N. M. Sex behaviour of hypophysectomized male rats. *Nature*, 1933, 132, 641.—In rats hypophysectomy was found to be followed by complete disappearance of sex behavior. Though general recovery was rapid, hypophysectomized males failed to react to females in heat. This disorientation persisted. Partial hypophysectomy failed to affect behavior in some cases, though in others the sequence of sexual acts was incomplete, indicating lack of persistence of sex drive and of copulatory potency.—E. H. Kemp (Clark).

2063. Worley, L. G. Metachronism in ciliated epithelium. *Proc. Nat. Acad. Sci.*, 1933, 19, 320-322.—Cilia are remarkable not only because they beat but because they possess the ability to act in sequence—metachronously. The direction toward which the propagated waves travel may be the same as the direction of the effective stroke of the individual cilia, or the reverse. Beating and metachronism are intimately related and one is rarely observed without the other. Anesthetics show that beating and metachronism are quite definitely distinct. The basal body is the motor center for the ciliary beat. It might be supposed that a neuroid impulse brings about a metachronic behavior of the cilia by stimulating the basal corpuscles in succession.—W. N. Hallett (Cedar Crest).

2064. Worley, L. G. The intracellular fibre systems of *Paramecium*. *Proc. Nat. Acad. Sci.*, 1933, 19, 323-326.—The author reports a method for observing and photographing intracellular fibers in fresh preparations of *Paramecium*. This has not previously been achieved. Two such photographs are reproduced in the text.—W. N. Hallett (Cedar Crest).

2065. Wrede, W. L. Versuche über die Chemoreception bei *Eupagurus bernhardus* (L.). (Experiments on chemoreception in *Eupagurus bernhardus* L.) *Tijdsch. Neder. Dierkund. Vereen.*, 1929, 1, 109-112.—(*Biol. Abst.* VIII: 783).

2066. Wrede, W. L. Versuche über den Artduft der Elritzen. (Experiments on the specific chemical of minnows.) *Zsch. f. vergl. Physiol.*, 1932, 17, 510-519.—In a glass apparatus with inter-connecting compartments minnows were able to find without training a place from which others had been removed, or in which minnow slime was located. Individuals were trained to swim to the vicinity of slime, where

food was given, and did not lose this ability when deprived of forebrain. This indicates that when olfaction is absent, gustatory sensitivity makes possible the response of a *Phoxinus* individual to the chemical of its species. The responses of individuals to such stimuli from their kind appear to account for the ability of schooling fishes to remain grouped during the night.—T. C. Schneirla (New York University).

2067. Wunder, W. Wie fangen planktonfressende Fische ihre Nahrungstiere? Versuche an Karpfen. (How do plankton-eating fishes capture their food organisms? Experiments on carp.) *Zsch. f. vergl. Physiol.*, 1932, 17, 304-336.—The method involved examination of alimentary tract contents after aquarium feeding periods under various conditions. Daphnia were ingested in about equal quantities during periods in light or in the dark, but when less food was available smaller amounts were taken during dark periods. Carp with destroyed olfactory epithelium contained about the same amounts of prey after test periods as did normals. Hence vision and olfaction are not considered essential. Dead plankton organisms treated for the purpose of removing potential gustatory stimuli were taken readily when swirled about in the water. Carp do not select particular species of plankton as prey, but merely engulf organisms that congregate (in response to temperature and other conditions) in a part of the medium at a given time. The form and size of the prey appear crucial, since materials such as powdered blood or filter paper were taken in negligible quantities when swirled in the water. The author does not compare this result with those from experiments in the darkened aquarium.—T. C. Schneirla (New York University).

2068. Zieske, R. Einfluss der Entfernung von Hypophyse oder Augen auf den Farbwechsel des Laubfrosches (*Hyla arborea* L.). (The effect of removing hypophysis or eyes upon the color changes of the tree-frog *Hyla arborea* L.) *Zsch. f. vergl. Physiol.*, 1932, 17, 606-643.—In the tree-frog, as in other amphibia, the secretion of the hypophysis causes melanophore expansion (darkening), since extirpation of this gland prevents the green frog from darkening. Experiments involving the removal of different parts of the hypophysis show that the pars intermedia and the pars nervosa are complexly interrelated in the control of skin coloration. The coloration of a frog after blinding changes according to its color before the operation, and in dependence upon environmental conditions before and during the operation; e.g., a frog which is black before being blinded, and is operated upon in a black chamber, first becomes pale and then slowly changes to a permanent green. Blinded frogs, green as well as black, maintain the same coloration whether on rough or smooth surfaces, and whether in daylight or in the dark chamber. Sitting on leaves of different textures, tree-frogs become green, evidently through their perception of the living plant and not through direct contact with the leaves.—T. C. Schneirla (New York University).



## EVOLUTION AND HEREDITY

2069. Goddard, H. H. *Die Familie Kallikak*. (The Kallikak family.) *Manns päd. Mag.*, 1934, No. 1393. Pp. 73.—R. R. Willoughby (Clark).

2070. Laughlin, H. H. *The general formula of heredity*. *Proc. Nat. Acad. Sci.*, 1933, 19, 787-801.—The author presents in detail, with the aid of five charts, his general conclusions concerning heredity arising out of his researches on the breeding of thoroughbred horses. He presents what he believes to be an accurate mathematical picture of how nature transmits a measured hereditary quality from one generation to another. He believes that many other definite uses may be found for the general formula of heredity as a tool or instrument for research in both genetics and evolution.—W. N. Hallett (Cedar Crest).

2071. Laughlin, H. H. *The specific formula of heredity*. *Proc. Nat. Acad. Sci.*, 1933, 19, 1020-1022.—"It is demonstrated that, for any measured quality which tends to run-in-the-family, the Specific Formula can be found in conformity with the General Formula, provided that a sufficient number of individual data are available." The author discussed his general formula in a preceding article.—W. N. Hallett (Cedar Crest).

2072. Robinson, C. H. *Co-educational graduates' birth rates*. *Eug. News*, 1933, 18, 116-119.—"Swarthmore men fail of reproducing themselves by 23 per cent; Harvard by 36 per cent; Swarthmore women by 41 per cent; Vassar women by more than 45 per cent. Deficiency is caused not only by the so-called 'deliberate small family system' but (a) among all college women as at Harvard by failure to marry, (b) among all groups by late marriage, (c) among Swarthmore women, at least, by an excess of 1-child families at most ages at wedding."—M. V. Loudon (Pittsburgh).

2073. Van Herwerden, M. A. *Eugenics in Holland*. *Eug. Rev.*, 1933, 25, 175-177.—B. S. Burks (California).

2074. Willoughby, R. R. *Somatic homogamy in man*. *Human Biol.*, 1933, 5, 691-705.—An analysis of the 1928 data of Boas with special respect to racial groups. Marked male superiority in age and size was found for all national groups, but slight sex difference was shown by the indices. The homogamy coefficients group at about .12 for Sicilians, Central Italians and Hebrews and at about .05 for Hungarians-Slovaks, Bohemians, Poles, and Scotch. The coefficient for stature was the highest for any of the variables. The coefficients for age averaged about .84, with little variation with racial grouping. Stature, head measurements, and facial index increased very slightly with age, but the cephalic index did not. Among the Bohemians there was zero homogamy in hair color, with a coefficient of contingency of .67 in eye color. Self-correlation of .25 was found between stature and head length for the Hebrews.—O. W. Richards (Yale).

[See also abstracts 1907, 1935, 2049, 2128, 2183, 2185, 2198, 2352.]

## SPECIAL MENTAL CONDITIONS

2075. Bancroft, W. D., Gutsell, R. S., & Rutzler, J. E., Jr. *Reversible coagulation in living tissue*. XI. *Proc. Nat. Acad. Sci.*, 1933, 19, 85-90.—After the consideration of seven cases, the authors come to the following conclusions: Chronic alcoholism is benefited by treatment with sodium rhodanate, peptization therapy. Such treatment tends to return the patient to normal very rapidly. The patient then can sleep a normal amount and has no physical need for alcohol. All chronic alcoholics on whom sodium rhodanate can be used safely can be cured if there is only a physical need for alcohol. If the need for alcohol is brought about by an inadequate personality, chronic alcoholism cannot be combated successfully with the meager facilities at our disposal. The same general theory underlies the treatment as that which gave rise to a successful treatment for morphinism.—W. N. Hallett (Cedar Crest).

2076. Bancroft, W. D., & Rutzler, J. E., Jr. *The agglomeration theory of sleep*. *Proc. Nat. Acad. Sci.*, 1933, 19, 73-78.—The authors report experiments with sodium rhodanate from which they conclude that sleep is due to a reversible coagulation of some of the proteins of the centers of consciousness by a substance or group of substances produced during work. The coagulating effect can be counteracted to some extent due to the irritability of the sensory nerves. A peptizing agent such as sodium rhodanate will decrease this irritability and thereby make sleep possible, though not causing it. A larger dose of the peptizing agent may act also on the centers of consciousness and thereby prevent sleep. Use is made of this when counteracting morphine.—W. N. Hallett (Cedar Crest).

2077. Belaval, J. Y. *Sur les sources sensorielles des visions du demi-sommeil*. (Concerning the sensory sources of visions of half-sleep.) *J. de psychol.*, 1933, 30, 812-826.—According to the author hypnagogic images tend to be peripherally aroused. They result "from a constant effort of the mind to recognize familiar things in the confused sensations which reach it." Several hypnagogic visions experienced by the author are analyzed in terms of the sensory factors which appeared to precipitate them. Events of the day or evening were important factors in determining the nature of the images. It is only rarely that an image experienced in the hypnagogic state is clearly outlined. Five figures illustrate some of the author's visions.—N. L. Munn (Pittsburgh).

2078. Bender, L. *The anal component in persecutory delusions*. *Psychoanal. Rev.*, 1934, 21, 75-85.—In his discussion of the significance of the anal component in persecutory delusions, Staercke claims that the identification of the beloved object with the individual's own feces and his ambivalent reaction make up the paranoid constellation. The feces are the real persecutor. Two case histories are cited, the first of which is an acute case of paranoid delusions which showed, in remarkably pure form, the principle of persecution by the patient's own feces, which also represented the loved object and toward

which the patient had a marked ambivalent reaction.—*L. S. Selling* (Institute for Juvenile Research).

2079. **Bergler, E.** *Die Biographik macht der Psychoanalyse Konzessionen.* (Biography makes concessions to psychoanalysis.) *Psychol. Beweg.*, 1933, 5, 501-512.—Biography has in the past been objective, analytic without seeking causes for character traits, and appealing to the lay reader. The present-day tendency is toward a subjective analysis, the approach of psychoanalysis, and appeals to the psychological student of character. Four types of this approach are to be noticed: (1) the psychoanalytic, (2) the partly analytic, (3) the independent, (4) the naive. Examples of these are given.—*A. B. Herrig* (Michigan Central State Teachers College).

2080. **Besterman, T.** An experiment in "clairvoyance" with *M. Stepan Ossowiecki*. *Proc. Soc. Psych. Res.* (London), 1933, 41, 332-345.—A drawing of a jar, with two words "swan" and "ink" printed on it, was made, folded and enclosed in two light-tight envelopes, and in a third manila envelope, each one sealed and marked so as to disclose any attempt made to open it. This packet was taken to the subject by trusted agents, who observed it continuously throughout the experiment. The result was a striking success in drawing a duplication of the contents. The packet was returned with all seals intact. No one present at the test knew the contents.—*J. B. Rhine* (Duke).

2081. **Besterman, T.** Library catalogue (supplement 1931-1933). *Proc. Soc. Psych. Res.*, 1934, 42, 1-47.—*R. R. Willoughby* (Clark).

2082. **Cenac, M.** *Conception psychanalytique des névroses.* (The psychoanalytic conception of the neuroses.) *J. méd. fr.*, 1933, 22, 131-133.—*M. H. Piéron* (Sorbonne).

2083. **Clark, L. P.** Treatment of narcissistic neuroses and psychoses. *Psychoanal. Rev.*, 1933, 20, No. 3.—Though experience shows that the psychoanalysts' therapeutic art has not yet developed sufficiently to deal successfully with the deeper levels of narcissistic fixation, there is reason to believe that the narcissistic libido may, through the catharsis of analysis, be discharged. Walden, who maintains that it is impossible to overcome a powerful narcissistic inbinding, declares that it is not necessary to do so in treating the psychoses and narcissistic neuroses. The motives which create pathogenic symptoms in neurosis are unconscious, and opposed to these is the conscious will of the ego. Analytic treatment brings out, first of all, knowledge of the cause of the illness, and through analysis the narcissistic libido is transferred to the person of the analyst and thence to real objects. The difficulty in narcissistic disorders is securing a strong enough transference, but once this is established, the procedure is similar to that followed in the analyses of transference neuroses. A long case history is given.—*L. S. Selling* (Institute for Juvenile Research).

2084. **Clark, L. P.** A psychological study of sycophancy. *Psychoanal. Rev.*, 1934, 21, 15-39.—This is the discussion of the case history of an individual

who, though quite mature intellectually, never develops a proper sense of responsibility and usually remains in a dependent state. He has a craving for "things" and views them as supports upon which to pose his impotent ego. This striving for a sense of omnipotence is motivated by his desire to compensate for his lack of any real strength. Hand in hand with this wishing for omnipotence goes a feeling of optimism suggestive of the nursing's dependence upon the all-giving mother. He has an ambivalent attitude toward his father and the characteristic picture exhibited is that of subjective homoeroticism. By obtaining things he experiences a narcissistic gratification which provides a defense against critical reality, and is a further indication of a type of libido arrest or fixation on the earliest phase of the maternal identification, characterized by a shrinking from reality. Psychoanalysis is the only therapeutic agent to which we may now look for a possibly successful treatment of sycophancy, and in this case psychoanalysis has made the patient a self-supporting individual.—*L. S. Selling* (Institute for Juvenile Research).

2085. **Coriat, I. H.** Totemism in prehistoric man. *Psychoanal. Rev.*, 1934, 21, 40-48.—A study of the very complicated subject of totemism would indicate, even from a non-analytic viewpoint, that the practice was really an outgrowth of the struggle, in Paleolithic man, between the ego and the super-ego. The latter slowly gained the ascendancy. A totem animal was substituted for the father and, in keeping with the Oedipus motivation, was sacrificed and devoured, the sacrifice thus being a renewed expression of the incestuous wish which has found symbolic satisfaction. The deed has thus become substituted for the thought, yet at the same time, the deed has become subject to the moral prohibitions of the super-ego. Such images as the "Sorcerer," says Sollas, prove how deeply steeped in symbolism was the mind of primitive man, and indicate how stony was the path over which the race slowly trudged from utter darkness to comparative light.—*L. S. Selling* (Institute for Juvenile Research).

2086. **Cronin, H. J.** Psychoanalytic sources of religious conflicts. *Med. Rec.*, 1934, 139, 32-34.—Are religious conflicts a factor in the development of nervous conditions? This question of a Harvard theological student prompted Cronin to review the histories of his neurotic patients. The cases were chiefly college students and business executives, of widely different cultural backgrounds and representative of the principal religious beliefs in America. The findings are that religious conflicts play only a minor role in the neuroses, and that when present they are always secondary elaborations of primary conflicts, particularly in regard to the father, or clashes between the instinctual urges and the ethical self. From this standpoint, the religious opinions of neurotics are significant. The absence of religious conflicts in neurotics of the present day, and in fact the utter indifference of many cases to religion, is a striking contrast to the furious religious conflicts of the past.—*M. E. Morse* (Catonsville, Md.)

2087. Dooley, L. A note on humor. *Psychoanal. Rev.*, 1934, 21, 49-58.—When an individual treats a situation humorously, he treats the person involved in it (whether himself or another) as a child. There is a displacement of ego to super-ego, the former taking on the quality of "littleness." Humor is an escape from suffering. Like neurosis, it is a renunciation of reality, but it differs from this in that the escape through humor is secured without cost to mental health. Humor is a triumph of narcissism. It develops only after the birth of the super-ego. Unlike wit, it is never sadistic. The detailed case history given hints at the existence of a spiritual relationship between humor and masochism parallel possibly to the relationship between wit and sadism.—L. S. Selling (Institute for Juvenile Research).

2088. Federn, P. Sandor Ferenczi. *Int. J. Psychoanal.*, 1933, 14, 467-485.—This is a memorial address paying tribute to the personality of Ferenczi, portraying his attitude toward his work, and surveying in part with brief exposition and critical comments his contributions to the theory and practice of psychoanalysis.—M. H. Erickson (Worcester State Hospital).

2089. Glover, E. The relation of perversion-formation to the development of reality-sense. *Int. J. Psychoanal.*, 1933, 14, 486-503.—The author defines reality-sense, reality-testing, and objectivity, and discusses as incomplete Ferenczi's, Federn's, and Klein's methods of investigating these concepts. Drug addiction analysis suggests possible reconstruction of the reality-sense from psychopathological data, because (1) drug addiction shows phases of regression which allow reassessment of reality, and (2) perversion-formation and fetishistic phenomena accompany addiction. Likewise, psychotic crises show transitory perversions as measures of preserving reality-sense. Sado-masochistic tendencies increase the reality-sense by allowing acceptance of part objects or fetish development through libidization. Perversions show, parallel to the developmental order of psychic states, an orderly differentiation as regards object aim and completeness. They constitute protection against introjection and projection anxiety by means of excessive libidization. This libidization cancels or holds in suspense unreal fear systems. It is reinforced by repression. The original nucleus of infantile reality when extricated from the unreal reactions becomes the adult objective reality. Infantile anxiety reanimated in adult life gives rise to perversions which serve to patch over flaws in the development of the reality-sense. Probably the best perspective for reality-sense study is the meeting point of transitional psychoses, perversions, and obsessional neuroses.—M. H. Erickson (Worcester State Hospital).

2090. Glover, E. Unbewusste Wünsche im Alltagsleben. (Unconscious wishes in daily life.) *Psychol. Beweg.*, 1933, 5, 485-500.—This is Glover's introductory speech at the meeting of the London Institute of Psychoanalysis early in the year. In his explanation of the subconscious he cites the innum-

erable unconscious automatisms that characterize our behavior patterns. He discusses the dominance of the wish in the daily thought and emotion pattern. Thought is mainly egocentric, either in anxieties or in narcissism. Wishes are grounded in unrecognized urges, and are revealed in dreams and reverie, but have relationship to the conscious processes and markedly influence daily life. The article discusses the transfer of wishes into sublimations and projections.—A. B. Herrig (Michigan Central State Teachers College).

2091. Hitschmann, E. Die Binding Eckermanns an Goethe. (The attachment of Eckermann for Goethe.) *Psychol. Beweg.*, 1933, 5, 520-526.—Eckermann, while writing a biography of Goethe, has two dreams of which he writes to his sister, posthumous dreams of Goethe and his son. The author analyzes these dreams into the emotional patterns Eckermann holds with reference to Goethe, his lifelong friend, his love for him and his anxieties to do him justice in the delineation of his character.—A. B. Herrig (Michigan Central State Teachers College).

2092. Jones, E. Obituary: Sandor Ferenczi, 1873-1933. *Int. J. Psychoanal.*, 1933, 14, 463-466.—Jones pays tribute to Ferenczi, mentioning the course of development of his psychoanalytic interests, his friendship with Freud, and his role in the organization of the International Psycho-Analytical Association and the Hungarian Psycho-Analytical Society. He then tells briefly of Ferenczi's personality and his work.—M. H. Erickson (Worcester State Hospital).

2093. Karpman, B. Psychic impotence. *Psychoanal. Rev.*, 1933, 20, 274-303.—In proportion as physical and psychic love become separated, impotence is brought about. The condition of psychic impotence is grouped as an hysterical neurosis, conversion type. Six illustrative cases are given showing (1) the effect of divided love on potency; age and masturbation in relation to impotence; (2) fear of serious disease as a barrier to potency; (3) unreasonable jealousy on the part of partner, impotence as an antipathetic and revenge reaction; (4) masturbation as an etiological factor in impotence, moral inhibitions as factors, ejaculatio praecox and morning erections, relation of impotence to frigidity; (5) family fixation and incest as factors, effect of moral inhibitions, marriage as a releaser of potency, syphilophobia, primary and secondary impotence; (6) hatred of women, incest, homosexuality and masturbation.—L. S. Selling (Chicago).

2094. Laird, D. A. Seasonal changes in calcium metabolism and quality of sleep. *Med. Rec.*, 1934, 139, 65-67.—Data obtained from the study of the charted sleep of 224 persons, ranging in age from sixteen to ninety-one years, indicate that the natural seasonal changes in calcium metabolism are closely associated with sleep quality, the quality being poorest in springtime when calcium is lowest, and best in the late autumn, the high calcium season. Statistical findings are given on the measurement of such factors as duration and soundness of sleep, time spent in bed before falling asleep and after awaking, degree



of alertness, torpor, irritability and nervousness on arising, all of which appear to confirm the theory that sleep quality and metabolism are related. The sleep of older persons is affected slightly by high-calcium and low-calcium seasons, possibly due to the serum calcium of age being naturally low. Ages from thirty-one to fifty show most change during the seasons compared, reflecting previous findings that around age thirty-five is a critical period for sleep quality.—*L. S. Selling* (Institute for Juvenile Research).

2095. Mandell, S. *Individualpsychologische Behandlung von Sprachfehlern*. (Individual-psychological treatment of speech defects.) *Int. Zsch. f. Indiv.-psychol.*, 1933, 11, 409-416.—The cases are presented of three children who responded favorably to treatment when their wrong social attitudes were corrected. The chief emphasis in the analysis is laid on the fact that the stutterers especially quite regularly show their social discouragement and lack of self-confidence in their stubbornness, insolence, and masochistic tendencies. These attitudes are developed largely through unfair discrimination or through over-indulgence. The speech defect is for them a defensive measure for thwarting or controlling others.—*O. N. de Weerd* (Beloit).

2096. Rathbun, C. On certain similarities between Spinoza and psychoanalysis. *Psychoanal. Rev.*, 1934, 21, 1-14.—Starting from quite different points and pursuing equally divergent aims, Spinoza and Freud have arrived at strikingly similar conclusions. Particularly do their concepts of determinism seem to accord, while the Spinozistic idea of the conatus parallels closely the analysts' concept of what was originally termed the libido. Of all the comparisons between Spinoza the rationalist and mystic, and psychoanalysis the latest step-child of psychology, the most salient perhaps is to be found in their common recognition of the role of ambivalence in the emotional life. There is little probability of historical influence, but there is a closer alliance of Spinoza's psychology with psychoanalysis than exists with any other modern school of psychology.—*L. S. Selling* (Institute for Juvenile Research).

2097. Reiman, G. The influence of coffee on the association constant. *J. Exper. Psychol.*, 1934, 17, 93-104.—This study was concerned with an attempt to investigate the influence of coffee upon the constants involved in a mathematical curve which may be used to express the conditions that obtain in associative learning. An evaluation of the data leads to the conclusion that the power to form associative bonds is definitely increased by coffee.—*H. W. Karn* (Clark).

2098. Schmideberg, M. Psychoneuroses of childhood: their etiology and treatment. *Brit. J. Med. Psychol.*, 1933, 13, 313-327.—The cases of five psychoneurotic children are discussed. Adult cases are cited to show how their psychoneurotic manifestations may be based on neuroses in childhood. An appendix summarizes the results of treatment by means of

analyses lasting from 70 to 325 sessions with each child.—*E. R. Hilgard* (Stanford).

2099. Schmidt-Mödling, W. *Der Oedipus-Komplex der Freudschen Psychoanalyse und die Ehegestaltung des Bolschewismus*. (The Oedipus complex of Freudian psychoanalysis and the development of the form of marriage under Bolshevism.) Berlin-Vienna: Erneuerungsverlag, 1932. Pp. 36. M. 1.00.—The author criticizes Freud's insufficient ethnological basis and insists that psychoanalysis should make use of scientific ethnology.—*K. F. Muenzinger* (Colorado).

2100. Schroeder, T. The inner conflict: its sources, social results and subjective activity. *Psychoanal. Rev.*, 1933, 20, No. 3.—It is possible to study the genesis of the inner conflict only by being in empathy with the material to be studied. The conflict over irrepressible desires begins with the birth processes. When the child develops the love-hate complex toward the mother, he loves her because he can form a more complete union with her, and hates her because she has forced separation between them. The love-hate conflict can be seen in diversified manifestations, particularly in religion. The discipline of living may accentuate the love-hate complex and force the individual to acquire a superstructure of morbid emotional evaluation.—*L. S. Selling* (Institute for Juvenile Research).

2101. Schroeder, T. Conditions of the growing inner conflict. *Psychoanal. Rev.*, 1933, 20, No. 3.—With the experiences subsequent to birth, the infant becomes more conscious of indulging cravings and of distressing thwartings. The indulgences come through experiencing bodily functions. It is the intensity of these infantile experiences which largely determines the degree of psychopathology or healthy-mindedness which may develop in later life. The weaning process is the second great event in the life of many infants. Later, discipline promotes the conflict with the authoritative not-self. Adolescence and pubescence give pregenital eroticism new intensities, associations, new disciplines, intensified fears, and guilts, new temptations, thwartings, and indulgences, greater fixation, and changes in introversion and extraversion of interest. This gives rise to the guilty feeling which may be the cause of tendencies toward morbid, anti-social trends.—*L. S. Selling* (Institute for Juvenile Research).

2102. Stekel, W. The future of psychoanalysis. *Psychoanal. Rev.*, 1933, 20, No. 3.—Psychoanalysis has entered upon a new phase. It is no longer a therapy of recollections; it is a purposeful training to remember the past. The libido theory cannot be upheld, and the author denies the validity of the castration complex. Analysis must be active. It must make the tremendous advance from passivity to activity. Then analysis will have become the common good of all physicians, perhaps of all mankind, and the practicing physician will have to be an analyst to maintain his status of physician. The prophylaxis of the neuroses will be the next task of psychoanalysis, and through it the striving to decrease

to a minimum the number of the unfortunate and the miserable. Analysis will be important in connection with criminality. That is the task of the present fermentation, and that is the future of psychoanalysis.—*L. S. Selling* (Institute for Juvenile Research).

2103. Winterstein, H. *Schlaf und Traum*. (Sleep and dream.) Berlin: Springer, 1932. Pp. 135. M. 4.80.—The larger part of the monograph is devoted to a description of sleep, which is considered as "a safety measure to afford the brain a rest from excitatory processes." The author accepts, though not uncritically, most of Freud's theory of the nature of dreams.—*K. F. Muenszinger* (Colorado).

[See also abstracts 1895, 1909, 2040, 2125, 2147, 2165, 2186, 2340, 2370.]

## NERVOUS AND MENTAL DISORDERS

2104. Aldama, J. M. *Los sindromes esquizofrénicos no procesales. Síndromes esquizofrenoides*. (Non-processal schizophrenic syndromes. Schizophrenoid syndromes.) *Arch. de neurobiol.*, 1932, 12, 881-916.—The isolation of the syndromes of schizophrenia appears to be a task beyond the powers of present-day psychiatry. A definition of schizophrenia is not yet standardized. The factors to be taken into account in a differential diagnosis of this disease are (1) the results of a physical analysis; here the presence of a schizophrenoid syndrome does not affirm the presence of schizophrenia; (2) the method of onset of the disease; there is a tendency to consider as non-processal those states resembling schizophrenia which arise out of tuberculosis and pregnancy. Since processal factors are not constantly present their presence or absence is not of great value in diagnosis. The datum of greatest value in a differential diagnosis is a *posteriori* observation of the residue of the schizophrenoid process on the personality. The results of the schizophrenic processes are apparent in behavior in a striking loss of the unity of affective functioning. Only a longitudinal section of the psychosis in collaboration with structural analysis can permit a trustworthy diagnosis.—*J. W. Nagge* (Chicago).

2105. [Anon.] *Abstracts of theses, Smith College School for Social Work, 1933. Smith Coll. Stud. Social Work*, 1933, 4, 151-172.—Abstracts of ten studies of psychotic patients, seventeen studies on the methods and results of social-psychiatric treatment, fourteen studies of children with special abilities or of a particular personality type, and four miscellaneous studies.—*R. H. Brown* (Clark).

2106. Bosch, G. *Concepto de la locura*. (A concept of insanity.) *Bol. instit. psiquiat.*, 1933, 5, 164-179.—Consciousness and extension or space are irreducible in terms of each other; they are intuitively discovered; they cannot be explained, but only described. Consciousness is an active or passive functional phenomenon. The dissociation of mental activities from autonomic functions precedes a pathological development of the ego. Insanity is a mental state characterized by an active disruption in the affective and the intellectual harmony of the

individual. The relationship existing between insanity and genius is noted.—*J. W. Nagge* (Chicago).

2107. Braun, E. *Manisch-depressives Irresein*. (Manic-depressive psychoses.) *Fortsch. Neur. Psychiat. u. Grenzgeb.*, 1933, 5, 505-513.—This is a brief discussion of various opinions and clinical findings concerning manic-depressive psychoses. Binswanger's classification of the complex phenomena of the flight of ideas as found in normal and abnormal persons is given and discussed in some detail. There is a large bibliography.—*D. S. Oberlin* (Newark, Del.).

2108. Brodsky, P. *Zur individualpsychologischen Beeinflussbarkeit der Epilepsie*. (Concerning the possibility of individual psychological influence on epileptic attacks.) *Int. Zsch. f. Individ.-psychol.*, 1933, 11, 369-377.—A case of epilepsy in a girl is followed in its changing expressions through a period of five years. The record shows that the attacks varied in severity as well as in the nature of their approaching signals and of the after effects, according as the patient met encouragement or difficulty in her social adjustments. The symptomatic expressions of organic defects may thus be increased when they serve as defense measures for the neurotic individual, and they may then be reduced when stabilization of the personality is effected.—*O. N. de Weerd* (Beloit).

2109. Bruce, H. A. *Sterilization of the feeble-minded*. *Canadian Med. Asso. J.*, 1933, 29, 260-263.—*R. R. Willoughby* (Clark).

2110. Burrow, T. *The morphology of insanity as a racial process: a study of attention in relation to adaptive disorders*. *Brit. J. Med. Psychol.*, 1933, 13, 296-312.—The viewpoint of phylopathology and the method of phyloanalysis are presented. Current psychiatry is too much concerned with exchanging ideas for ideas, and images for images, instead of having recourse to physiological methods of repair. The conflict or disparity present in mental disorders consists in a discrepancy between those feelings and sensations which belong to the organism as a whole and those which belong to the cephalic region.—*E. R. Hilgard* (Stanford).

2111. Carns, M. L., & Washburne, A. C. *Psychiatric investigation in internal medicine*. *Ann. Internal Med.*, 1933, 7, 664-668.—*R. R. Willoughby* (Clark).

2112. Cebrián, J. G. *Vasamblea de la liga española de higiene mental*. (The fifth meeting of the Spanish league for mental hygiene.) *Arch. de neurobiol.*, 1932, 12, 975-1007.—The fifth meeting of the Spanish league for mental hygiene occurred in Granada. A record of the proceedings is given.—*J. W. Nagge* (Chicago).

2113. Clancy, F. J. *Urologic symptoms of psychogenic origin*. *Urol. & Cutan. Rev.*, 1933, 37, 703-707.—*R. R. Willoughby* (Clark).

2114. Clemmensen, C. *Nosocomiale Selbstmorde an den Irrenanstalten Dänemarks 1922-1931*. (Nosocomial suicides in the institutions for mentally diseased in Denmark, 1922-1931.) *Acta psychiat. et neur.*, 1933, 8, 509-512.—One-half of the 41 suicides



(24 men and 17 women) were committed during the first two years of the mental diseases and in the first half year of stay in the institution. There were 1.9 suicides per 1000 admissions. The methods were: 20 suspensio, 14 submersio, 4 veneficium (dial, luminal, denatured spiritus, veronal plus chloral), 3 praecipitatio. The cases were diagnosed as follows: 21 melancholia (manic-depressive psychosis), 6 dementia praecox, 6 degeneratio psychopathica, 3 epilepsia, 2 dementia paralytica, 2 paranoid psychoses, 1 encephalitis. Out of the 41 cases, 18 had attempted suicide prior to admission to the institution, 12 others had voiced thoughts of suicide, and in 7 out of the above cases suicides had occurred among near relatives.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

2115. Cohen, B. *Treatment of amnesia.* *New England J. Med.*, 1933, 209, 389-391.—*R. R. Willoughby* (Clark).

2116. Costedoat, A. *La simulation.* (Simulation.) Paris: Bailliere, 1933.—Costedoat, of the Paris Military School, treats chiefly of the diagnosis of simulation.—*M. E. Morse* (Catonsville, Md.)

2117. Courtois, A., & André, Y. *Affaiblissement intellectuel consécutif à une intoxication oxycarbonée aiguë accidentelle chez une jeune fille.* (Intellectual enfeeblement following an acute accidental carbon monoxide intoxication in a young girl.) *Ann. méd.-psychol.*, 1933, 91, 686-691.—A 24-year-old girl was in a coma for three hours as a result of carbon monoxide poisoning. Following the coma, she was stuporous for three weeks and then hyperactive for two days. She then became quite deluded. Her memory was very poor both for past and recent events. Her mental age was 7 years 6 months. She could not recognize objects seen only a few minutes before. For the most part, she was indifferent to her surroundings. She was occasionally impulsive. There is a question as to the mechanism of carbon monoxide poisoning. It may be due to a lack of oxygen in the cerebrum, or it may be caused by a toxic condition in the nervous system. Four types of results from acute carbon monoxide intoxication are listed: (1) rapid death without regaining consciousness; (2) apparent cure for eight or ten days and then a period of confusion; (3) more or less rapid cure, with or without confusion, immediately following the coma; (4) physical cure, but prolonged mental trouble or intellectual enfeeblement which may be incurable. The case reported falls in this last group and still shows a marked enfeeblement after six months.—*M. B. Mitchell* (New Hampshire State Hospital).

2118. Dorcus, R. M., & Shaffer, G. W. *Textbook of abnormal psychology.* Baltimore: Williams & Wilkins, 1934. Pp. 389. \$4.00.—The present textbook presents a general survey of the field divided into the following chapters: the field and scope of abnormal psychology; sensory disorders; motor disorders; the associative mechanism; desires, feelings, and emotions; sleep, dreams, and hypnosis; classification of mental diseases—organic psychoses; functional psychoses; psychoneuroses; mental deficiency and

mental superiority; and psychotherapy. Bibliography of 313 titles.—*W. S. Hunter* (Clark).

2119. Frenzel, F. *Epilepsie und Schizophrenie.* (Epilepsy and schizophrenia.) Dissertation, Leipzig, 1933. Pp. 57.—The first part of this dissertation is a critical review of the literature on the subject of epileptoid fits in schizophrenic patients. The opinions of the various authors differ greatly from each other. This is due in part to differences of terminology used by the different writers and in part to difficulties in making satisfactory diagnoses. In the second part the problem of a combination of epilepsy and schizophrenia is discussed, and the various opinions found in the literature on the subject are compared and criticized, with consideration of two reported cases. In the writer's opinion the term "combination" should be avoided, because certain presuppositions are implied in it which in the present state of psychiatric diagnosis cannot be fulfilled. The first of the author's own cases is conceived as a mixture of a genuine epilepsy with a coincident superadded complex of schizophrenic disposition, while the second case is regarded as a schizophrenic psychosis, which reveals also some characteristics of an epileptoid constitution.—*F. Frenzel* (Dresden).

2120. Fuller, D. H. *Nursing education in mental hospitals.* *Ment. Hygiene*, 1934, 18, 69-82.—In emphasizing the value of schools of nursing in mental hospitals the writer urges that a high standard be maintained. Rapport between the schools of the general hospitals and the mental hospitals is important. There is a great need for an increase in the number of educated male nurses in this field.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

2121. Glueck, B. *Mental hygiene.* *Encyclopedia of the Social Sciences*, 1933, 10, 319-322.—The author traces the development of the mental hygiene movement from the time of Pinel's early reforms up to the present. The contention is made that in so far as the movement has been able to function in the prevention of human maladjustment it has been able to do so largely because of the contributions of the psychoanalytic school of psychology.—*H. W. Karn* (Clark).

2122. Gulstad, O. *Psychische Grundelemente und ihre Dissoziation durch Psychosen.* (Basic mental elements and their dissociation in psychoses.) *Acta psychiat. et neur.*, 1933, 8, 535-548.—Three basic mental elements are propounded: (1) *Handlungsvermögen*, the ability to act in its various manifestations, such as negativism and echopraxia; (2) *Selbstbehauptung*, the ability for defense and attack, with the realization of inferiority and superiority; (3) *Lebensentfaltung*, the ability to adjust oneself to conditions of life. "It looks as though the mental life of man has developed on the basis of the development of the cell." Under normal conditions, these three basic elements can hardly be differentiated; in psychoses, however, they differentiate themselves and make for the following types: schizophrenia (*Dyskinophrenia*), the different kinds of insanity, and manic-depressive psychosis.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).



2123. Harris, W. Neurological emergencies. *Lancet*, 1933, 225, 849-853.—Discussion of the immediate care and treatment to be given cases of fits, coma, recurrent convulsions, headache, neuralgia, vertigo, and cerebellar thrombosis.—D. J. Ingle (Minnesota).

2124. Heller, T. Psychische Hygiene und Erziehung. (Mental hygiene and education.) *Vjsch. f. Jugendk.*, 1933, 4, 227-238.—The rise of the mental-hygiene movement in America is sketched. The author questions the emphasis on the social case worker's approach and the relative absence of interest in theoretical psychological principles. Although the expense of developing such a general popular movement makes it impossible in Germany at present, the author discusses the practical advantages of avoiding mental disease by work in schools and with parents and suggests some forms this work should take.—M. Lee (Chicago).

2125. Horney, K. Psychogenic factors in functional female disorders. *Med. & Prof. Woman's J.*, 1933, 40, 319-325.—R. R. Willoughby (Clark).

2126. Künkel, F. Eine Angstneurose und ihre Behandlung. (An anxiety neurosis and its treatment.) *Beih. Int. Zsch. f. Individ.-psychol.*, 1931, No. 6, 1-70.—R. R. Willoughby (Clark).

2127. Levy, D. M. Mental defectives. *Encyclopedia of the Social Sciences*, 1933, 10, 312-313.—The article is chiefly devoted to a discussion of various methods of diagnosing mental deficiency, institutionalization of mental defectives, and programs advocated by eugenists for raising the mental level of the population as a whole. There is also an account of the early attempts by Itard and others to overcome congenital defects of the mind through education.—H. W. Karn (Clark).

2128. Luxemburger, H. Die Ergebnisse der Erbprognose in den vier wichtigsten psychischen Erbkreisen. (Results of hereditary prognosis of the four most important hereditary mental disease groups.) *Zsch. f. psych. Hygiene*, 1933, 5, 131-135.—Findings of "most important and reliable" statistical studies on inheritable diseases were recomputed and summarized in four tables, one for each of the following types: schizophrenia, manic-depressive (cyclothymic) insanity, epilepsy, and feeble-mindedness. These types are considered as "the most important" psychic defects among the eight named in the recent sterilization law. The tables comprise in part the following categories: siblings, children, grandchildren, cousins, nephews and nieces, grand-nephews and grand-nieces, great-grandchildren, and average population. In addition they show the total number of cases studied, the probabilities (in percentages) of afflicted cases by main type, similar types, other abnormal types, and the totals that are eugenically objectionable and unobjectionable. In children schizophrenia is inherited in 9.10% of the cases, or approximately 11 times the rate for the general population; similar figures for manic-depressive insanity are 32.30%, or 73 times; for epilepsy 10%, or 33 times; and for feeble-mindedness 58%, or 58 times the rate of the average population respectively.—W. Reitz (Chicago).

2129. Marchand, L. L'automatisme ambulatoire épileptique. (Ambulatory epileptic automatism.) *Ann. méd.-psychol.*, 1933, 91, 609-651.—Three types of cases are reported. In type one, the patients have manifested other typical symptoms of epilepsy, such as vertigo and fits, before the ambulatory automatism. In type two, the patients have manifested other typical symptoms of epilepsy after the fugue, although none had been observed previously. In type three, no other symptoms of epilepsy have been observed either preceding or following the fugues. In all three types, the onset and end are sudden. There is usually total amnesia, but it may be only partial. The patient frequently sleeps for many hours following the attacks. In all cases, the wandering seems purposeless. The amount of contact with the environment varies from the patient who cannot avoid obstacles to the patient who may answer questions fairly well. The author discusses the differences between epileptic and other fugues, especially hysterical fugues, and the medical-legal aspects. Many references are given in footnotes.—M. B. Mitchell (New Hampshire State Hospital).

2130. McCartney, J. L. Psychopathic personality. *New York State J. Med.*, 1933, 33, 1045-1049.—R. R. Willoughby (Clark).

2131. McCready, E. G. Relation of endocrines to juvenile psychoses. *Penn. Med. J.*, 1932, 35, 538.—General discussion. Endocrine disorders do not usually cause the abnormal mental state but may intensify constitutional predispositions.—D. J. Ingle (Minnesota).

2132. Müller, H. [Ed.] Bericht über die psychiatrische Literatur im Jahre 1931. (Report on psychiatric literature in the year 1931.) *Allg. Zsch. f. Psychiat. u. psychisch-gerichtl. Med.*, 1933, 94/95, Pp. 314. RM. 18.00.—R. R. Willoughby (Clark).

2133. Noyes, A. P. Modern clinical psychiatry. Philadelphia: Saunders, 1934. Pp. 485. \$4.50.—The first four chapters, devoted to a presentation of the fundamental concepts essential to an understanding of the problems of psychiatry, discuss the development of the mind and the levels of behavior attained, the question of psychic energy and the dynamics of behavior, particularly as expressed in emotions, instincts, and wishes, the role of conscious and unconscious processes and the problems of mental mechanisms and their motivations. Chapter 5 surveys the field of causation, presenting both physiogenic and psychogenic views regarding the nature and cause of mental disease. The next two chapters discuss symptomatology and the problems of psychobiological constitution and reaction types. Chapter 8 provides a guide for history-taking, an outline for mental examination, and the official classification of mental diseases. The remaining twenty chapters are devoted to a discussion as to causes, symptoms, variations, diagnosis, prognosis, and treatment of the various psychoses listed in the official classification, with illustrative case reports. A bibliography is appended to each chapter and the book is indexed.—M. H. Erickson (Worcester State Hospital).

2134. Odobesco, G. I., & Vasilescu, H. *Schizophrénie et neurosyphilis*. (Schizophrenia and neurosyphilis.) *Ann. méd.-psychol.*, 1933, 91, 652-665.—Three cases are presented of syphilis and schizophrenia in the same patient. In each case, the relation and course of the diseases are different from those in the others. No general statement can be made as to any causal relation between the two diseases; in some cases they may merely coexist.—M. B. Mitchell (New Hampshire State Hospital).

2135. Owensby, N. M. The mind as a factor in bodily disease. *Med. Rec.*, 1934, 139, 19-24.—Owensby reviews the mechanisms through which the neural energy arising from emotional disturbances causes disorders of physiological functions. He emphasizes particularly that, owing to the greater sophistication of the modern mind, sympathetic listening and good advice on the part of the doctor are no longer sufficient to dissipate such symptoms, and a more complicated psychiatric approach is necessary.—M. E. Morse (Catonsville, Md.).

2136. Petrén, A. *Erfahrungen bezüglich des schwedischen Verwahrungsgesetzes*. (Experiences in regard to the Swedish custodial law.) *Acta psychiat. et neur.*, 1933, 8, 513-534.—Historical review, illustrative case histories, etc., concerning the working of the paragraph in the Swedish penal code which deals with incarceration and punishment of individuals of inferior or disturbed mentality. Good effects have been apparent; criminals of abnormal mentality are prevented from new crimes, as they might be kept in custody beyond the time of punishment (even for life) and those who are released into society are being kept under supervision.—M. L. Reymert (Mooseheart Laboratory for Child Research).

2137. Reiter, P. *Motilitätspsychosen*. (Motility psychoses.) *Acta psychiat. et neur.*, 1933, 8, 563-571.—The writer describes and discusses 24 cases of this type of psychosis, which he found within a material of 3000 psychoses. He divides motility psychosis into four subtypes. The main result may be quoted: "On the basis of my material, it looks as if the syndrome motility-psychosis, in a series of cases, is a variant of cyclophrenia, and depends upon conditions which are linked up with puberty or pre-puberty, i.e., a definite juvenile phenomenon."—M. L. Reymert (Mooseheart Laboratory for Child Research).

2138. Rowe, A. W., & Pollock, H. M. *Psychoses, psychoneuroses, and endocrine dysfunction*. *Endocrin.*, 1933, 17, 658-666.—Out of a consecutive series of 4000 patients, referred mainly because of suspected endocrine disorder, 250 were found with mental disease. Of this mental group about 75% presented some form of endocrine disorder. In the entire endocrine group (2308 cases) 8.1% showed mental disorder, while in the non-endocrine group (1608 cases) 3.7% showed mental disorder. Thus "Mental disorders are more than twice as frequent in the endocrine as in the non-endocrine series in spite of the fact that in this latter group there is a relatively large number of patients with conditions conceded to be productive

of mental disorder." The authors are not here concerned with an attempt to establish a causal-resultant relationship between mental disease and disturbed endocrine function.—D. J. Ingle (Minnesota).

2139. Santenoise, A., & Léculier, P. *Un jugement de divorce d'un aliéné interné*. (A judgment of divorce from a hospitalized insane patient.) *Ann. méd.-psychol.*, 1933, 91, 666-676.—In France, divorces to mates of insane patients, although usually illegal, have been granted under three conditions: (1) if the acts leading to the divorce proceedings were committed after the patient had been discharged and declared sane; (2) if the patient was himself considered responsible for his condition, as in cases of alcoholic psychosis and general paresis; (3) as in the case reported here, in which the patient had been psychotic previous to his marriage and had deliberately concealed the fact.—M. B. Mitchell (New Hampshire State Hospital).

2140. Schmitz, A. *Die hirnerkrankten Kriegsveteranen*. (Brain-injured war veterans.) *Zsch. f. psych. Hygiene*, 1933, 5, 140-150.—Communicates experiences with brain-injured soldiers, and surveys provisions made to rehabilitate these unfortunates, of which there are still about 25,000 living, into society. The work of several stations for brain injuries has been most successful through therapeutic exercises in the case of linguistic disturbances, only relatively successful in the reduction of epileptic cases. Considerable reduction in serious complaints has been achieved with various medical, physical, electrical, dietetic, and other kinds of treatments. Other services of these agencies consist in the evaluation of the extent of invalidism for the purpose of determining rates of governmental compensation. Besides medical and social welfare, these stations extended their help also in the form of vocational guidance, giving family attention, providing living quarters, or in more serious cases, special settlements and homes. There is still a number of cases not coming to the attention of the authorities, and social welfare workers have been instructed to cooperate with the stations. Greater consideration and more liberal compensations are suggested as a national obligation.—W. Reitz (Chicago).

2141. Schou, H. *Anemia psychoses and anemia neuroses*. *Acta psychiat. et neur.*, 1933, 8, 483-506.—The article gives an historical survey of former studies in this field and relates the experiences of the author from a material of 783 patients, who were examined in the course of the years 1929-32 with 924 test meals and 305 hematologic examinations. Of these 793 patients with psychoses and neuroses examined thus, 1.3% showed signs of pernicious anemia, and 2.2% had signs of simple achylic anemia. Technique and ten case histories of patients having hyperchromatic anemia with chronic achylia and neuropsychosis are given in detail. It cannot be settled with certainty whether the pernicious anemia in all the cases referred to is the cause of the neurosis or psychosis. They are possibly parallel phenomena. All insane and nervous patients should be examined with a view to these

disorders.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

2142. Šebek, J. Poruchy sympathiku v encefalickém syndromu parkinsonském. (Disorders in the sympathetic system in the parkinsonian encephalitic syndrome.) *Rev. v neur. a psychiat.*, 1933, 30, 193-199.—*G. O. Seiver* (Grinnell).

2143. Wigert, V. Attempts at anthropometric determination of the body types of Kretschmer. *Acta psychiat. et neur.*, 1933, 8, 465-481.—The subjective feature of the determination of the Kretschmer types will perhaps be seen most clearly from the fact that the group "uncharacteristic" of the various investigators varies between 0 and 55%. The material of the writer's examination is made up of 241 patients treated in the Psychiatric Hospital in Stockholm, 119 males and 122 females. No selection was made according to disease or "characteristic" body type or the like. Age was not considered. Cases by the thousand would be necessary for this purpose. Results are presented in various tables and graphs. The writer coins and uses several specific new indices but does not find that either the previous ones or his own will separate the types distinctly. Among the results might be noted that in the dementia praecox group there is a statistically ascertained greater frequency of leptosome plus athletic individuals, both in men and in women, and a smaller frequency of pyknic individuals, than in any of the other groups. There are, however, no differences of importance between the groups of manic-depressive and other diagnoses. It was also found that dysplastic patients cannot be judged by means of any kind of formulae. In the relation of the thorax to the length of the legs it was found that there was a distinct correlation with the form of the psychosis, excluding the consideration of age. There is a question whether the athletic type of body exists at all as a separate type. As a result of a statistical examination concerning the relation between different anthropometric body types and the different groups of diagnosis, it was found that "both in men and in women there is a statistically tenable contrast between the dementia praecox group on one side and the groups of manic-depressive and other diagnoses on the other side." The investigation supposedly verifies the observation of Kretschmer on the relative affinity of dementia praecox to certain body types, and this affinity can be ascertained by measuring the skeleton alone. On the other hand, the anthropometric examination could not confirm that there is a greater pyknic affinity in the manic-depressive group than in the group of "other diagnoses." The above investigation is completely published in Wigert, *Versuche zur anthropometrischen Bestimmung der Körperbautypen*, *Zsch. f. d. ges. Neur. u. Psychiat.*, 1933, 143.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

2144. Woolley, L. F. The prophylaxis of functional mental disease. *South. Med. J.*, 1933, 26, 802-809.—*R. R. Willoughby* (Clark).

[See also abstracts 2082, 2083, 2164, 2195, 2252, 2283, 2297, 2349, 2374.]

## PERSONALITY AND CHARACTER

2145. Berk, A., Lane, L., & Tandy, M. C. Personality study of 100 parents of habit clinic children. *Bull. Mass. Dept. Ment. Diseases*, 1933, 17, 2-39.—*R. R. Willoughby* (Clark).

2146. Berk, A., Lane, L., & Tandy, M. C. A study of relationships between the problems of habit clinic patients and their parents. *Bull. Mass. Dept. Ment. Diseases*, 1933, 17, 39-61.—*R. R. Willoughby* (Clark).

2147. Bragman, L. J. The case of Algernon Charles Swinburne: a study in sadism. *Psychoanal. Rev.*, 1934, 21, 59-74.—The study of Swinburne's writings reveals that he was closely attached to his mother, while he had resentment, or hatred, towards his father and tutor. He had idealized reactions to his grandfather. He had grave character deficiencies which showed when he was at Eton and Oxford. The chief feature of his pathology was his interest in sadism and masochism. His writings and reading show that he had a great interest in the Marquis de Sade. He exhibited some interest in lesbianism and other perverse emotional excitements. It is probable that he suffered from psychasthenia.—*L. S. Selling* (Institute for Juvenile Research).

2148. Herzog, H. Stimme und Persönlichkeit. (Voice and personality.) *Zsch. f. Psychol.*, 1933, 130, 300-369.—Nine different people, varying widely in age, personality, and station in life, were presented to Viennese radio audiences, and the latter were requested to fill in a questionnaire which had been circulated. The questionnaire asked for judgments as to physique, social status, personality, age, sex, etc., of the speakers, and for the reasons as far as they could be determined for these judgments. Approximately 2700 answers were received. An analysis of these revealed a strikingly large number of correct judgments. It was found, for instance, that from voice alone the physical constitution of the individual (in the sense of Kretschmer's typology) could be determined with some degree of certainty. The statistical analysis of the replies, when supplemented by a careful phenomenological analysis of the listening experience, gave ample evidence for the assumption that voice is to some extent at least a valid indicator of personality, and suggested numerous problems for further research.—*R. B. MacLeod* (Swarthmore).

2149. Hoppe, J. Ein verkrüppeltes Kind. (A crippled child.) *Int. Zsch. f. Individ.-psychol.*, 1933, 11, 399-400.—A character sketch of a helplessly crippled child who suffered infantile paralysis at one year of age. No reasons are given for the development of an apparently extraordinarily unselfish, thoughtfully considerate attitude toward others. Her original stories reveal a high degree of fear of the outside world and of being hurt which her usually calm bearing would not allow one to surmise. She has apparently voluntarily repressed all memory of the pain and discomfort of early childhood, while happy and contented in the living present.—*O. N. de Weerd* (Beloit).



2150. Hoyer, N. *Man into woman*. New York: Dutton, 1933. (Trans. by H. J. Stenning.) Pp. 288. \$3.50.—This book, which has an introduction by Norman Haire, was written from Hoyer's personal knowledge of the case of the Danish painter, Einar Wegener, and from diary records left by Wegener. It tells how Wegener (who is given the pseudonym Andreas Sparre in the book) developed a dual personality, alternating between himself and the feminine personality, Lili, the latter personality gradually increasing in ascendancy. In the effort to achieve this feminine personality completely, Wegener (or Sparre) had several surgical operations. The nature of these operations is indicated, and Wegener's introspective account of his reactions, during the development of the dual personality and during and after the period when he was undergoing the operations, are recorded. There are illustrations showing the original self of the painter and his appearance as he assumed the role of Lili at various stages before and after the operations.—P. Blanchard (Philadelphia Child Guidance Clinic).

2151. Jaensch, E., & Schnieder, E. *Der Berufstypus des Schauspielers im Zusammenhang mit den allgemeinen Kunst- und Kulturfragen der Gegenwart. Ein Beitrag zur Integrationspsychologie*. (The vocational type of the actor in relation to general actual problems of art and culture. A contribution to the typology of integration.) *Schriften z. Psychol. d. Berufseignung u. d. Wirtschaftslebens*, 1932, Heft 44. Pp. 132.—The purpose of these two articles is to help to clarify the present cultural disputes between the "I-front" and the "S-front." The writers contend against the opinion that the lytic S-type would be the only legitimate type of actor. The typology of integration is in favor of a culture which is opposed to the intellectualistic S-type. It shows a trend for a new spiritual type of culture. Jaensch states in the first article as the aim of the typology of integration the foundation of an empirical-psychological anthropology with the basis of its values in reality, a finer delimitation between "healthy" and "sick," a hope for a favorable displacement of both spheres in the sense of an extension of the "healthy," and an unbiased investigation of the structure of great artistic and cultural creations. Schnieder's collection of verbal self-portraits of actors is important as cultural documentation for the psychology of actors. These data corroborate the thesis and facts brought forward by Jaensch.—F. Fischer (Wiesloch).

2152. Jaensch, E. R. *Zur Auseinandersetzung der Typenlehre Kretschmers und der Integrationstypologie*. (A discussion of the relationship between Kretschmer's typology and the integration typology.) *Zsch. f. Psychol.*, 1933, 130, 370-376.—In reply to Enke's criticism, Jaensch's original evaluation of the Kretschmer typology is reaffirmed.—R. B. MacLeod (Swarthmore).

2153. Krüger, H., & Zietz, K. *Das Verifikationsproblem*. (The problem of verification.) *Zsch. f. angew. Psychol.*, 1933, 45, 140-171.—The authors informed a group of 39 college students that they

were going to prepare a careful character analysis of each individual. At the end of four weeks they gave each one separately the supposed analysis, which was, however, the same for everybody and which had been made out without reference to any member of the group. All subjects agreed—many enthusiastically—that the statement correctly described their own characters. Only two students were somewhat critical, although they too agreed "on the whole." The authors explain this surprising result as a consequence of the rather general and vague tone of the alleged individual diagnosis, as a halo effect, and as the result of the peculiar situation in which the subject finds himself when he thinks somebody might have "found him out." This situation they call the "phenomenon of verification." They conclude that self-evaluation is of little significance and that a character diagnosis is of less value than a prognosis which predicts the probable behavior of the subject in a concrete situation.—K. F. Muensinger (Colorado).

2154. Laird, D. A. *Why we don't like people*. (Rev. ed.) New York: A. L. Glaser, 1933. Pp. 218. \$3.00.—R. R. Willoughby (Clark).

2155. Morgan, J. J. B. *Keeping a sound mind*. New York: Macmillan, 1934. Pp. 440. \$2.00.—Written as a text to be studied by college students for their own benefit. Treats of how to judge mental health; deals with conflicts, how to master fear, what to fight for, how to fight; discusses emotional maturity, correct thinking, and how to deal with handicaps and overcome emotional depression, how to get things done, and how to develop self-confidence. At the close of each chapter are a number of questions and at the end of the book some references for further reading. The health norms emphasized are happiness, broad perspective, a capable body, readiness for responsibility, a suitable goal, drive, and ability to get along with people. The author describes various common mental disturbances and shows how to avoid or overcome them.—E. A. Kirkpatrick (Leominster, Mass.).

2156. Scholz, F. *Die Charakterfehler des Kindes*. (Character defects of the child.) Leipzig: Barth, 1932. Pp. 231. M. 6.90.—K. Wilker prepared this new edition of a book which first appeared in 1891.—K. F. Muensinger (Colorado).

2157. Starr, H. E. *Promethean constellations*. Part I: A psychonomic contribution to analytical technique. Part II: Certain analytical discriminations. *Psychol. Clin.*, 1933, 22, 1-20.—By a Promethean constellation is meant the drive in the direction of a higher and fuller life than that permitted by the tabus of the social environment. We must recognize that sexuality and will to power do not constitute the entire content of the subconscious. A typical case is described to illustrate the force of the drive toward self-realization and the serious consequences of its being thwarted by social conventions and tabus. In the second paper the author explains more fully the derivation and meaning of the term Promethean constellation. He suggests several factors that have

kept psychoanalysts from discovering such complexes before, and remarks that Jung seems to have come closest to the concept here outlined. He answers the objection that the Promethean constellation is mystical by pointing out that it is the product of scientific analysis and that its resemblance to certain generalizations of mysticism does not invalidate it.—*J. T. Metcalf* (Vermont).

2158. Usher, R. D., & Hunnybun, N. K. Overcrowding as a factor in personality maladjustment. *Mother & Child* (London), 1933, 4, 214-217.—*R. R. Willoughby* (Clark).

[See also abstracts 2084, 2130, 2168, 2177, 2186, 2190, 2254, 2261, 2274, 2282, 2331.]

#### SOCIAL FUNCTIONS OF THE INDIVIDUAL

2159. Alexander, R. "Not guilty by reason of insanity." *Med. Rec.*, 1934, 139, 28-32.—The author gives illustrations of frauds practised under this plea. In order to abolish evasion and imposture in such matters, there must be physicians trained especially in criminal psychiatry, and a better mechanism for cooperation between the medical and legal professions.—*M. E. Morse* (Catonsville, Md.)

2160. Allport, F. H. *Institutional behavior*. Chapel Hill: Univ. of North Carolina Press, 1933. Pp. xiii + 526. \$3.50.—Included in the twenty-two essays which make up this book are Allport's views on topics such as: popular government, justice, nationalism, patriotism, corporate agency, leisure, the family, children, and individualism. The author opposes that type of thinking in regard to man which sees him as a fragment of an institutional form. He does not believe an institution is either necessarily valuable because it exists nor that its existence is inevitable because it comes to us through cultural inheritance. He prefers indeed to speak of institutions not as things but rather as habits of functioning men. Allport believes strongly in the superior value of the personality developed in the face-to-face group and deplors the segmental contacts which are forced upon individuals in our heavily institutionalized society; an example of this would be the fact that a teacher in our schools knows the child only as a "pupil" and not as a whole child. Strongly represented also is the plea for the "freedom of individuals" against rigid and confining social patterns, and it is suggested that if the impulse life of children is brought into contact with cultural forms without extreme limitation from adults the evolution of existing forms in terms of native human needs is possible, and that this is also the route to the creation of culture forms more suitable to human needs. Another basic conviction is: "That which men have the power to do, they also have the power to stop doing." The author believes that this desirable direction of change is a return in some manner to primary group contacts between individuals while retaining the benefits of the rational economic organization.—*J. Dollard* (Yale).

2161. Altavilla, E. *Il suicidio*. (Suicide.) Naples: 1932.—The author, who is a professor at the University of Naples, treats of the psychological, psy-

chiatric and legal aspects of suicide.—*M. E. Morse* (Catonsville, Md.)

2162. [Anon.] *Juvenile delinquency*. *Bull. Russell Sage Foundation Library*, 1933, No. 122, 1-4.—A selected bibliography of recent material on juvenile delinquency. The material in this list was published during the years 1930 to date and supplements Library Bulletins Nos. 42, 68 and 101.—*H. W. Karn* (Clark).

2163. Armstrong, C. P. *Delinquency and primogeniture*. *Psychol. Clin.*, 1933, 22, 48-52.—A statistical study based on the records of four groups of delinquent boys, a combined total of 991 cases, examined in the clinic of the Children's Court of New York City. There is found some indication of primogeniture in delinquents when their offenses are against the home. In the case of other offenses there is evidence of this factor only in families of certain sizes.—*J. T. Metcalf* (Vermont).

2164. Assagioli, R. *Music as a cause of disease and as a healing agent (with special reference to the sound film)*. *Int. Rev. Educ. Cinematog.*, 1933, 5, 583-595.—*R. R. Willoughby* (Clark).

2165. Bathelt, K. *Individualpsychologie und Soziologie*. (Individual psychology and sociology.) *Int. Zsch. f. Individ.-psychol.*, 1933, 11, 394-395.—Adler has pointed out that each individual is a type in himself, moved by his own particular attitudes derived from his own personal experiences. Social groups, whether of races, economic classes, or those of equal age, are presumably likewise developed as types, and their behavior traits, traditions and achievements are similarly accounted for by a study of their historical records. Each in turn must further be understood on the background of its contemporaries and their conditions. Thus, because of high corporation taxes in Austria-Hungary, individual enterprise characterized industrial and commercial development and control, while in Germany and in the United States the organization tends to be corporate.—*O. N. de Weerd* (Beloit).

2166. Berk, A., Lane, L., & Tandy, M. C. Follow-up study of thirty habit clinic children who manifested delinquency problems before the age of ten years. *Bull. Mass. Dept. Ment. Diseases*, 1933, 17, 61-81.—*R. R. Willoughby* (Clark).

2167. Braunshausen, N. *Le bilinguisme et les méthodes d'enseignement des langues étrangères*. (Bilingualism and the methods of teaching foreign languages.) *Cahier de la Centrale du P. E. S. de Belg.*, 1933, 8. Pp. 135.—This work treats two problems: (1) What are the moral and intellectual effects of bilingualism, a problem which is presented in the majority of the countries of Europe? The results of the investigations made in the different countries are rather unfavorable to bilingualism; but the results are not free from criticism. They should be repeated with more exactness, and the author indicates under what conditions. (2) What are the best methods for learning a foreign language? The author presents his experiments on this question,

including those which he has made on university students. He concludes that the direct method is the best for learning to speak the foreign language; but for learning to write the language, a judicious use of grammar and translation should be added.—*R. Nihard* (Liège).

2168. Bullwinkle, B. A. **Methods and outcome of treatment of stutterers in a child guidance clinic.** *Smith Coll. Stud. Soc. Work*, 1933, 4, 107-138.—A study of 22 cases of stuttering treated at the Institute for Child Guidance, New York. "The chief difference between the various adjustment groups appeared to lie in the relative seriousness of the problems which they presented. The unadjusted were handicapped by both physical and emotional traits and by the attitude of their parents. In the partially adjusted group, handicapping parental attitudes were offset by the patients' more favorable personalities. That the successfully adjusted were even more favorably situated from an emotional point of view is suggested by the fact that they improved under social manipulative treatment. Since these findings are in agreement with those of other studies of child guidance results, the conclusion seems indicated that stuttering may accompany various degrees of personality disorder and that prognosis is dependent on these other attendant conditions."—*R. H. Brown* (Clark).

2169. Cannell, M., & Snapp, E. L. **Signs, omens, and portents in Nebraska folklore: proverbial lore in Nebraska.** *Univ. Neb. Stud. Lang., Lit., & Criticism*, 1933, No. 13. Pp. 112.—*R. R. Willoughby* (Clark).

2170. Carré, J. F. **The psychology of piano teaching; a text book for teachers, students, and parents.** Racine, Wis.: Author, 1933. Pp. 95. \$1.50.—*R. R. Willoughby* (Clark).

2171. Chadwick, M. **Woman's periodicity.** London: Douglas, 1933. Pp. 227. 6s.—A historical survey is made of early and primitive beliefs and of ancient medical theories surrounding menstruation. Its role in witchcraft is discussed and followed by an account of the possible origins of menstrual tabus. Conscious attitudes in particular of both sexes toward this function are elaborated as to genesis and significance. There follows a discussion of the menopause and its most frequent disturbances. The psychoanalytic point of view is apparent throughout the book.—*M. H. Erickson* (Worcester State Hospital).

2172. Chapin, F. S. **The measurement of social status.** Minneapolis: Univ. Minn. Press, 1933. Pp. 16. \$0.25.—A description of a new scale (Social Status Scale 1933) for measuring social status. The report includes comparative data on the reliability and validity of the Living Room Scale 1931 and the Social Status Scale 1933 which show that the latter scale is just as reliable and valid a measuring device as the former. In view of its greater brevity and simplicity, the new scale is offered as a substitute for the Living Room Scale 1931 in all research that requires the measurement of social status.—*H. W. Karn* (Clark).

2173. Ciampi, L. **La patologia del lenguaje en la edad evolutiva.** (The pathology of language development in the growth period.) *Bol. instit. psiquiat.*, 1933, 5, 147-163.—Studies of the language habits of children reared in an isolated atmosphere show these habits to result from imitation. Decroly discovered that language habits which are defective are more frequent in male than in female children. This phenomenon was explained upon the basis of physiological differences which are sex-linked. Jakob holds that the primitive language impulse of the child arises in the striate nucleus, articulated language being cortical in origin and resulting from collaborative association. Marinesco and Kreindler explain the development of the speech mechanism in terms of the conditioned reflex. The author classifies speech disturbances under three headings: (1) evolutionary, (2) developmental, and (3) regressive.—*J. W. Nagge* (Chicago).

2174. Davidson, G. M. **The problem of suicide.** *Med. Rec.*, 1934, 139, 24-28.—The author's approach is through Von Monakow's theory of autoregulation of individual functions, Janet's psychological tension, and Bergson's idea of attention to life. On the basis of 48 cases, Davidson regards the mechanism of suicide as a polarization of the life-continuation impulse due to the loss of a goal. The result is extreme insecurity and fear of the unknown. The conscious motive acts as a "dominant" and produces extreme contraction of the field of consciousness with splitting of the unity of functions and a consequent general organic depression, cessation of will and of the normal automatic rejection of the unhealthy, i.e. inattention to life. The idea of suicide is not sudden but is the result of increasing tension. Similar situations have occurred in the patient's past, especially during adolescence. Although autoregulation may be reestablished automatically, he is permanently safe only when an adequate goal is created.—*M. E. Morse* (Catonsville, Md.).

2175. Dickinson, R. L. **Human sex anatomy.** Baltimore: Williams & Wilkins, 1933. Pp. xiv + 145 + 175 figs. \$10.00.—Largely anatomical, but containing references to sexual behavior, including frigidity.—*O. L. Harvey* (Research Dept., State Prison Colony, Norfolk, Mass.).

2176. Dunbar, H. F. **Medicine, religion and the infirmities of mankind.** *Ment. Hygiene*, 1934, 18, 16-25.—Although there are two different approaches to the treatment of body and soul, they should not be too widely separated. There is need for the clergyman to develop his own techniques in the light of psychological and psychiatric findings, rather than injecting religion into psychiatric techniques. Psychiatrist and theologian must heed the fact that while medicine must remain objective and impersonal in its attitude, religion loses its potency when it adopts those attributes. The need for research in psychosomatic relationships is pointed out.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.).

2177. Eichler, G. A., & Merrill, R. R. **Can social leadership be improved by instruction in its tech-**



nique? *J. Educ. Sociol.*, 1933, 7, 233-236.—Social leadership was measured by ratings of classmates. In three separate experiments with paired groups (with ninth, tenth and twelfth grade students), the experimental group which had instruction in the form of lectures and conferences on the various qualities and techniques of leadership showed greater gains in respect to this trait than did the control group which had no such instruction. In one group the instruction covered a period of six weeks; in the other two it was spread over seven months.—*F. D. McTeer* (Detroit Municipal University).

2178. **Gault, R. H. Criminology.** Boston: Heath, 1932. Pp. 461. \$3.48.—The criminal personality is approached from several angles in Part I of the book, while Part II is devoted to the struggle against crime. There are several rather new features and contributions. Special attention is given to emotions, attitudes, and drives of the organism, while the usual considerations of traditional criminology receive an active psychological interpretation. While not a statistical treatise, valuable data are presented on race, sex, intelligence, health, offenses, and penal and legal factors. Space is devoted to institutional and extra-institutional treatment of criminals, organized crime, and preventive therapy. Latest precision and laboratory methods of obtaining evidence, and criminal court procedures are described. Although the book stresses attitudes and the psychological approach, and while the author presents facts as they exist, criticisms and recommendations concerning the present order are advanced. In the chapter "Introducing the Criminal" as well as throughout the book, numerous concrete illustrations and short case reports are used. There is an epitome of the schools of criminology and representative criminologists, and concise presentation of the outstanding researches and conclusions to date. Appendices give a fund of information and outlines of programs, courses, and organization of research institutes and police training schools. While designed as a text, it is unique enough to be useful as a survey work. The bibliography is terse in specific page and chapter references, yet comprehensive and vital.—*D. P. Wilson* (Los Angeles).

2179. **Groves, E. R. Courtship and marriage.** *Ment. Hygiene*, 1934, 18, 26-39.—The writer emphasizes the need for educating young people for marriage by classes such as are given at the University of North Carolina. In addition to education a physical examination which involves research into family records is advocated. The need for more clinics similar to Popenoe's are needed to aid in matrimonial counseling.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.).

2180. **Gürtner, F. Das neue Reichsgesetz gegen gefährliche Gewohnheitsverbrecher.** (The new law of the Reich concerning dangerous habitual criminals.) *Arch. f. Krim.*, 1933, 93, 197-201.—An habitual criminal is defined as a person who has committed three serious punishable acts within five years, although he may not have been sentenced. The most common crimes in this group are theft and crimes

involving deception. The 1933 law provides heavier sentences for habitual criminals and an indeterminate parole, renewed every three years until the man is considered safe. The possession of burglar's tools or the giving of such to another person is punishable as a separate offense. Sterilization of dangerous habitual criminals is permissible under certain conditions, but not mandatory.—*M. E. Morse* (Catonsville, Md.).

2181. **Handtmann, E. Psychologie und Bekehrung (Wiedergeburt).** (Psychology and conversion; rebirth.) *Zsch. f. Religionspsychol.*, 1933, 6, 65-90.—The author presents a study of the phenomena of original religious experience and of the problem of "biblical pneumatology." Modern psychology has permitted us to make a deep survey of the human mind and has revealed the background of religion, but it cannot see behind the scenes the chaos of psychology and of psychopathology, which Kierkegaard has analyzed so strikingly. The question of the real source of original Christian experience an empirical psychology cannot answer; it may be answered only by a *Geisteswissenschaft höchster Art und Weihe*, pneumatology.—*A. Römer* (Leipzig).

2182. **Harms, E. Die Entsymbolisierung.** (De-symbolization.) *Psychiat.-Neur. Woch.*, 1933, 35, No. 45, 1-6.—A discussion of the modern trend toward concrete, rather than symbolical, expression. Special reference is made to increasing sexual frankness.—*R. H. Brown* (Clark).

2183. **Jacoby, H. Bemerkungen über biologische Tendenzen.** (Remarks on biologicistic tendencies.) *Int. Zsch. f. Individ.-psychol.*, 1933, 11, 345-350.—Presents objections to Vierstein's statements that at least 50% of the prison inmates of Bavaria are incapable of conducting their own affairs in freedom because of dominant inborn predispositions. The refutations are in the nature of generalizations, rather than of demonstrable facts.—*O. N. de Weerd* (Beloit).

2184. **Kainz, F. Differentielle Psychologie und Aesthetik.** (Differential psychology and esthetics.) *Zsch. f. angew. Psychol.*, 1933, 45, 209-261.—As a counterpart to general psychology a psychology of individual differences has been developed. In a similar fashion a differential point of view is appearing in esthetics. The tasks of a differential esthetics are the same as those of differential psychology as stated by Stern. First we have a study of variations, how esthetic experience differs with different individuals. The second task is esthetic psychography, a description of the entire esthetic experience of an individual. Most attention has been devoted so far to the third task, the correlation of two or more esthetic abilities in a number of persons. Finally we have the comparative study of two or more individuals in regard to their esthetic experience. Many differences of opinion between students of esthetics can be explained by the fact that they had in mind different individual characteristics which they assumed to be universal.—*K. F. Muensinger* (Colorado).

2185. **Kirihara, H. The development of intelligence in relation to socio-economic status.** *Rep. Inst. for Science of Labour*, 1932, No. 7. Pp. 22.—

An analysis of the results of intelligence tests given to children coming from different social levels. The author is of the opinion that the relatively poor showing of the children of laborers is due to both inheritance and milieu.—*K. F. Muenzinger* (Colorado).

2186. Kovacs, I. **Das Opfer.** (The sacrifice.) *Int. Zsch. f. Indiv.-psychol.*, 1933, 11, 471-477.—Case history of an invalid mother and two daughters each of whom "sacrificed" herself for the other two. The lack of socialization in the girls due to the exacting demands upon their time by the mother developed in them the typical shut-in personality. The writer then develops the thesis that the only sacrifice of a personality which society can accept as justifiable must be based on a courageous, constructive attitude toward life. Too frequently the concept is used as a rationalization to cover discouragement and social negativisms.—*O. N. de Weerd* (Beloit).

2187. Kunert, S. **Straffälligkeit bei Frauen, ihre Entstehung und Beschaffenheit.** (Criminal behavior of women, its genesis and nature.) *Beih. z. Zsch. f. angew. Psychol.*, 1933, No. 67. Pp. 200.—The author is a pastor in a jail for women. The major part of her monograph consists of detailed case studies of ten of its inmates. The analysis of this material is based on Stern's theory of personality.—*K. F. Muenzinger* (Colorado).

2188. Lasswell, H. D. **Morale.** *Encyclopedia of the Social Sciences*, 1933, 10, 640-642.—The author defines group morale as group persistence in the pursuit of collective purposes. Evanescent enthusiasm is no evidence of morale, although enthusiasm may strengthen it. Tenacity in the face of adversity is the most unequivocal index of high morale. The article includes a discussion of the following topics: (1) factors which contribute to low morale in the army; (2) the necessity of maintaining high morale among the non-fighting populace during warfare; (3) the problem of maintaining morale during crises other than war, such as disaster and depression.—*H. W. Karn* (Clark).

2189. MacIver, R. M. **Maladjustment.** *Encyclopedia of the Social Sciences*, 1933, 10, 60-63.—A discussion of technological and psychological maladjustment. In the former type the maladjustment falls within a scheme of social organization and is interpreted purely in terms of a social mechanism. Psychological maladjustment has an entirely different reference, although the condition which it designates may be represented as a consequence of technological disequilibrium. Here the maladjustment is attributed not to the social organization as such but to the socially conditioned, limited or repressed personality.—*H. W. Karn* (Clark).

2190. Milsom, A. K. **The teaching of courtesy in the junior high school.** *J. Educ. Sociol.*, 1933, 7, 249.—The effect of the systematic teaching of ideals and techniques of courtesy when the group taught was paired on scholastic marks with an uninstructed group was a slightly greater improvement in the experimental group. Results were measured by pupil ratings immediately after three months' instructions

and also after another three months had elapsed.—*F. D. McTeer* (Detroit Municipal University).

2191. Mühlmann, W. E. **Ausleseprozesse in der menschlichen Gesellschaft.** (Selective processes in human society.) *Bremer Beitr. z. Naturwiss.*, n. d. Pp. 31.—From examination of isolated societies the author finds that there is artificial, not natural, selection among primitive and medieval peoples. The suicide of various societies is attributed to artificial causes. The development of physically superior societies has been due to artificial selection, as by killing infirm and defective offspring.—*R. H. Brown* (Clark).

2192. Murdock, G. P. **Our primitive contemporaries.** New York: Macmillan, 1934. Pp. 636. \$5.00.—*R. R. Willoughby* (Clark).

2193. Orton, W. A. **Motion pictures.** *Encyclopedia of the Social Sciences*, 1933, 11, 65-68.—A discussion of the social significance of the motion picture. The question is raised whether such an art, which relies almost exclusively on mass appeal, can adequately preserve or foster the higher cultural values.—*H. W. Karn* (Clark).

2194. Peixoto, A. **Novos rumos da medicina legal.** (New questions in legal medicine.) Rio de Janeiro: 1932. Pp. 223.—This book contains discussions on psychoanalysis and the psychology of testimony.—*M. E. Morse* (Catonsville, Md.).

2195. Phares, M. L. **Analysis of musical appreciation by means of the psychogalvanic reflex technique.** *J. Exper. Psychol.*, 1934, 17, 119-140.—Results of this study indicate that the psychogalvanic reflex is of little value in the specific analysis of musical appreciation; and that, at its present stage of development, galvanometric technique for psychological application and interpretation is unprofitable for the following reasons: (1) the impossibility of isolating and controlling all of the phenomena and conditions involved; (2) the intangibility and variability in the subjective aspects involved in responding to complex stimuli; (3) lack of sufficient knowledge of the true physiological significance of the reflex; (4) inadequacy of present mathematical formulas for treating scores expressed as ratio values.—*H. W. Karn* (Clark).

2196. Powell, N. **A study of criminal conversations.** *Psychol. Clin.*, 1933, 22, 61-68.—This article presents the results of an analysis of 485 bits of conversation among inmates at Sing Sing Prison. The data were recorded and tabulated by an inmate assistant in the Classification Clinic. When compared with a similar study made outside of prison the results show striking differences. Home and weather are the two topics which appear most frequently in the criminal group, while health and religion appear least frequently.—*J. T. Metcalf* (Vermont).

2197. Reed, J. V. **Psychology of trauma.** *Indust. Med.*, 1933, 2, 157-161.—*R. R. Willoughby* (Clark).

2198. Riedl, M. **Studien über Verbrecherstämme, Spätkriminelle und Frühkriminelle.** (Studies on members of criminal families and "late" and "early" criminals.) *Arch. f. Krim.*, 1933, 93, 125-

135; 238-257.—This analysis of 350 cases is contributed as a justification of the recent law on the sterilization of criminals. The author's argument is as follows: Antisocial traits originate in emotional defect and consequent incapacity for sympathy, while the instincts remain of normal or increased intensity. As the emotional life, and consequently capacity for social adaptation, are determined organically through the vegetative nervous system, and as such defects are inherited, the rational direction of procreation is the successful way to combat crime. The influence of environment on conduct has been overrated. From economic considerations, the first measures for race regeneration must be directed to negative variants with antisocial tendencies. These are found in reformatories and institutions for dependent children and juvenile delinquents, and such individuals should be sterilized before they have an opportunity to reproduce.—*M. E. Morse* (Catonsville, Md.)

2199. Robinson, F. P. The tachistoscope as a measure of reading perception. *Amer. J. Psychol.*, 1934, 46, 132-135.—It is found that the usual tachistoscopic span of visual apprehension is not a good measure of the average span used in reading ( $r = .52$ ). A modified technique, whereby meaningful material is presented tachistoscopically, is a better but by no means perfect measure of the reading span ( $r = .66$ ).—*D. E. Johannsen* (Skidmore).

2200. Rojas, N. *Psiquiatria forense*. (Forensic psychology.) Buenos Aires: 1932. Pp. 400.—The author, who is professor of legal medicine at the University of Buenos Aires, reviews the advances in forensic psychiatry in the various South American countries.—*M. E. Morse* (Catonsville, Md.)

2201. Rosenthal, —. Schamgefühl und Sittlichkeit. (The sense of shame and morality.) *Sexus*, 1933, 1, 51-56.—The feeling of shame is a functional mechanism and cannot be localized. It does not exist in animals. It has grown up in the social relationship and is manifested in terms of self-consciousness. It is often considered as a protective mechanism, but is probably only a custom which has grown up in successive generations. It is used by women as a means of heightening the pleasures of love. The sense of shame has guided man's sex life very little, for statistics show that of various groups most individuals have had sexual intercourse, but it does have significance in heightening sexual enjoyment.—*L. S. Selling* (Chicago).

2202. Schwab, F. Differential treatment in unemployment relief cases. *Smith Coll. Stud. Soc. Work*, 1933, 4, 81-106.—An analysis of 72 cases carried by the Family Society of Philadelphia in cooperation with public relief agencies. A large number of the families were white, native-born Americans, with the great majority belonging to the laboring group. The chief factor in determining the level of treatment, described as "relief," "opportunity," "adjustment," or "therapy" was the client's desire for that kind of service. From the large number of cases carried on a relief level and the small number

carried on an adjustment or therapy level, the author suggests the general conclusion that only a small number of clients receiving unemployment relief desire case-work help.—*R. H. Brown* (Clark).

2203. Seelig, E. *Aus der Statistik der österreichischen Jugendkriminalität*. (From the statistics of Austrian juvenile delinquency.) *Vjsch. f. Jugendk.*, 1933, 4, 224-226.—Comparing 1931 with 1930, the following observations are made: decrease of 0.5% in mild offenses; increase of 3.0% in serious offenses; decrease in total of 2.2%; careless accidents (including motor) resulting in death, increased 4%; careless accidents with slight or no consequences, decreased 11%; proportion of juvenile in total criminal population decreased; proportion convicted of serious crime unchanged; distribution of types of offense unchanged; conditional acquittals increased; number of fines imposed decreased both relatively and absolutely.—*M. Lee* (Chicago).

2204. Sonnabend, H. *Note preliminari di demographia africana*. (Preliminary notes on African demography.) *Metron*, 1932, 10, 93-129.—The notes concern the region between the Limpopo and the Zambesi and involve principally the southern Bantu tribes. Information concerning usages, customs, etc., was obtained in a series of interviews with elderly natives, heads of families, tribal chiefs, medicine men, etc. The Bantu's desire for offspring is found to involve metaphysical considerations, inasmuch as surviving offspring must care for the departed parent's spirit, which remains. This belief, together with the desire for large tribal populations for protection from other tribes, is seen to underlie the various tribal marriage customs, including purchase and renouncement of wives, marriages to deceased persons, and all-female marriages. Extreme horror of sterility, sanctioned extra-marital sexual intercourse, polygamy and polygyny, tabus against incest, and requirements for intra-totem exogamy, are traceable to these same bases, as are also the killing of abnormal infants, the limitation of offspring, and the practice of contraception, which typically involves avoidance of *inmissio seminis*. Various tribal customs in sexual instruction and sexual morality are similarly explained. "For the Bantu, morality and decency are synonyms; neither signifies anything beyond unthinking obedience to custom."—*P. J. Rulon* (Harvard).

2205. Sperber, A. *Seelische Ursachen des Alterns, der Jugendlichkeit und der Schönheit*. (The psychic causes of aging, of youthfulness, and of beauty.) *Psychol. Beweg.*, 1933, 5, 469-484.—The author quotes from her larger work in this field. She holds that youth matures earlier and age holds its youth longer than in previous generations. Youth in our day is thrown into mature relationships by the circumstances of life, the contact given to children with older personalities, and disappearance of the paternalistic attitude. The sport life has a tendency to develop beauty and early self-admiration. The older group finds in mingling with the younger a cause for maintaining its youth. The unmarried woman retains



her youth longer, matures more slowly. Contact with life outside the restricted duties of home has a tendency to lengthen the youth period.—A. B. Herrig (Michigan Central State Teachers College).

2206. Spinden, H. J. *Songs of the Tewa*. New York: Exposition of Indian Tribal Arts, 1933. Pp. 125. \$3.00.—The poems themselves occupy about 38 pages; they are preceded by a 70-page essay, with copious citations, on Indian poetry in general, and followed by notes and a bibliography.—R. R. Willoughby (Clark).

2207. Stern, F., & Sacksofsky, —. *Beitrag zur Psychologie der Aussage bei Sittlichkeitsverbrechen*. (Contribution to the psychology of testimony in sexual crimes.) *Zsch. f. angew. Psychol.*, 1933, 45, 57-85.—The first part of the article contains a report of a famous case in which a teacher had been accused of a sexual crime by one of his pupils. The second part contains the expert testimony of a physician, F. Stern, who was especially active during the reopening of the case four years after the verdict of guilty, which was reversed in the second trial. The third part contains critical comments by the state's attorney Sacksofsky. Both men emphasize the necessity of a psychological analysis of both personality and testimony of witnesses in such a case.—K. F. Muenszinger (Colorado).

2208. Stern, W. *Zum Thema: Psychologie und Wiederaufnahme*. (Concerning the topic: Psychology and the reopening of a legal case.) *Zsch. f. angew. Psychol.*, 1933, 45, 54-56.—An introduction to the article by F. Stern and Sacksofsky (see VIII: 2207). The author reviews briefly the history of a famous case between the first verdict and the time of its reopening, during which period he had worked for a reexamination of the evidence and been drawn into a somewhat bitter controversy.—K. F. Muenszinger (Colorado).

2209. Stinchfield, S. M. *Speech disorders*. New York: Harcourt, Brace, 1933. Pp. xii + 341. \$4.00.—The book is divided into two parts: I, "The nature of speech disorders," and II, "Statistical studies of the speech of 3000 college women and of public school groups." In Part I the author gives a comprehensive survey and classification of speech disorders of all types. Chapter I deals with the normal speech development of early childhood, deviations from the normal development, habit formation in early speech, and the child's native tongue. This is followed by a chapter on the psychology of speech dealing with speech patterns and imagery, and five chapters on the classification of speech disorders. In these chapters the author presents results of her own research and clinical experience and correlates these with the findings of other workers. In Part II the author presents methods and results of several statistical studies of the speech of 3000 college girls and public school children, including a chapter on oral and silent reading. The studies were conducted for the most part by the questionnaire method and detailed analyses are given of these studies. The final chapter gives typical case histories, and in a

supplement the author includes a list of speech diagnostic tests which have been used in clinical work.—C. V. Hudgins (Clarke School, Northampton, Mass.)

2210. Strang, R., Brown, M. A., & Stratton, D. C. *Test of knowledge of social usage*. New York: Teachers College, Columbia, 1933.—A 100-item true-false test, e.g., "(Boys) Seat the lady at your left and wait for all the ladies at the table to be seated before you sit down." Norms are not given. A reliability of .87 is reported, based on 46 cases retested after a month.—J. M. Stalnaker (Chicago).

2211. Timme, A. R. *The significance of play and recreation in civilized life*. *Ment. Hygiene*, 1934, 18, 51-69.—Since play is an outlet for primitive aggressive impulses it is of importance to organized social work. The energy that plays a part in the more primitive delinquent and criminal behavior can be directed into the less aggressive realm of sports. The socializing influence of play on the child's behavior prepares him for adult life.—H. S. Clapp (Children's Village, Dobbs Ferry, N. Y.)

2212. Wertheimer, M. *Tatbestandsdiagnostik*. (Methods of ascertaining the facts of a case.) *Abderhaldens Handb. d. biol. Arbeitsmeth.*, Section VI, Part C. Berlin-Vienna: Urban & Schwarzenberg, 1933.—One important question of legal psychology is how a person reacts to a striking experience. Certain methods are suggested to analyze such reactions.—K. F. Muenszinger (Colorado).

2213. Wexberg, E. *Lebensstufen der Erotik*. (Stages in the love life.) *Int. Zsch. f. Individ.-psychol.*, 1933, 11, 377-394.—Human sex life is hemmed in between a biological urge and moral duty. Wexberg examines painstakingly a wide array of relationships between individuals of the opposite sexes in pairs and groups. He shows that the attitudes, drives, and inhibitions are not biological facts, but trends developed under social influences, and are psychologically explicable. Adolescent attitudes, climacteric behavior characteristics, marital and extra-marital relationships are considered in turn. The varied influences upon attitudes and behavior of the social traditions centering on the double moral and social standards are especially stressed as forming the bases for the serious but avoidable sex conflicts of the present day. Proper sex education of adults as well as of youth, looking to the development of healthier social standards, is urged as the real need of the day. Sex education is not a separable subject matter or an isolable sphere of activity, but is rather a problem of the fundamental social attitudes of any individual.—O. N. de Weerd (Beloit).

2214. Wolfe, D. L. *The relative stability of first and second syllables in an artificial language*. *Language*, 1933, 9, 313-315.—This paper is an addition to the author's earlier monograph on associative interference, and constitutes an examination of one aspect of the artificial language used in that study. The results of the present study show that for the type of dissyllabic names used in the artificial-language technique the position of a syllable is of much greater

importance than its meaning in determining its stability or instability.—H. W. Karn (Clark).

2215. Wurmtöter, H. *Individualpsychologische Bemerkungen zu Fichtes deutscher Nationalerziehung.* (Individual-psychological comments on Fichte's development of German nationalism.) *Int. Zsch. f. Indiv.-psychol.*, 1933, 11, 468-470.—An emphasis and restatement of some of Fichte's ideas. Fichte analyzed the political, social and psychological factors in Germany's plight while under Napoleon's heel in 1808. He refused to be bound by humiliation and pain to seek his happiness only in sensual pleasures. He did not attempt to depreciate the enemy in an effort to bolster German self-feeling and to arouse a lust for revenge either in himself or others. He sought to inspire to an attitude which would in the end provide the structure for a society which could encompass all humanity. It is the analysis of social values and the psychological considerations involved in the choice of means for inculcating on a national scale a sense of these values that interest Wurmtöter. Numerous excerpts from Fichte are quoted.—O. N. de Weerdt (Beloit).

2216. Yates, I. M. *Concepts and attitudes concerning slander and freedom of speech.* *J. Educ. Res.*, 1933, 27, 283-297.—Questionnaire study in a form for checking a number of statements *yes* or *no* and *true* or *false* were given to more than 1,000 students in grades VI, IX and XII and a longer form was given to 816 pupils in grades IX and XII. A statistical treatment of the results leads the author to conclude that "Concerning a few of the important principles which underlie the problems of slander and freedom of speech, the majority of pupils showed concepts and attitudes in harmony with statutes and court decisions." There appears to be a gradual growth from the sixth grade to the college level toward the proper concepts, although many misconceptions were evident.—S. W. Fernberger (Pennsylvania).

[See also abstracts 1913, 2074, 2085, 2086, 2091, 2095, 2099, 2105, 2114, 2139, 2148, 2158, 2240, 2261, 2270, 2282, 2290, 2297, 2311, 2330, 2332, 2353, 2354, 2356, 2361, 2363, 2366, 2367, 2369, 2378.]

#### INDUSTRIAL AND PERSONNEL PROBLEMS

2217. Achilles, P. S., & Schultz, R. S. *Characteristics of life insurance salesmen.* *Person. J.*, 1934, 12, 260-263.—A battery of personality and intelligence tests was given to a group of 557 new agents and 62 assistant managers in a large life insurance company. Preliminary analysis of the data shows that the assistant managers scored slightly lower than the new agents in ascendance and extroversion, and higher than the new agents in intelligence. Those with high production records, however, averaged higher than the low production men in ascendance and extroversion. Averages on the intelligence tests for the two groups were about equal. Comparisons of assistant managers and new agents on the Strong Vocational Interest Blank showed the former to belong predominantly in the linguistic and social service

groups, and the latter in the commercial and clerical groups.—(Courtesy *Person. J.*)

2218. [Anon.] *Conferencias sobre fisiología y psicología del trabajo en Madrid.* (Madrid conferences relating to the physiology and psychology of work.) *Med. d. trab. e hig. indus.*, 1933, 4, 227-250.—This is a short summary of the content of a series of conferences growing out of the work of the Instituto Psicotécnico de Madrid.—J. W. Nagge (Chicago).

2219. Arnaoutow, G. D., & Weller, E. W. *Procedure for establishing optimum air conditions for light and heavy work.* *J. Indus. Hygiene*, 1932, 14, 117-131.—(*Biol. Abst.* VIII: 814).

2220. Bedford, T., & Warner, C. G. *Observations on the working capacity of coal miners in relation to atmospheric conditions.* *J. Indus. Hygiene*, 1931, 13, 252-260.—(*Biol. Abst.* VIII: 815).

2221. Bird, C., & Paterson, D. G. *Commercial correspondence courses and occupational adjustments of men.* *Bull. Employment Stabilization Res. Inst., Univ. Minn.*, 1934, 2. Pp. 27.—197 unemployed and 108 employed men who had taken correspondence courses were studied. Only 5% completed the courses taken, and 38% of the unemployed and 30% of the employed dropped the course inside of six months. On the basis of schooling, general intelligence, and Minnesota Occupational Scale for testing special abilities, only 18% of the unemployed and 22% of the employed had taken courses in preparation for occupations for which they were judged to be fitted. Correspondence schools could fill a real need if instead of selling any course to any one who will pay, they would make use of standards and tests to supply each student with the courses fitted to his general and special abilities and previous experience.—E. A. Kirkpatrick (Leominster, Mass.).

2222. Bonnardel, R., & Laugier, H. *Grilles pour l'orientation et la selection professionnelles.* (Stencil for vocational guidance and selection.) *Trav. Humain*, 1933, 1, 469-471.—477 vocations are coded and these code numbers arranged in columns on a sheet. For each vocation a stencil is prepared by punching holes so that when it is aligned over the sheet, the visible numbers represent vocations in which inferiority in the trait represented by the stencil would be a distinct handicap.—H. E. Burtt (Ohio State).

2223. Christiaens, A. G. *L'orientation et la sélection professionnelles en Belgique.* (Vocational guidance and selection in Belgium.) *Bull. trimes. Off. intercom. d'orient. prof. de Bruxelles*, 1931, 41, 23-30.—R. Nihard (Liège).

2224. Christiaens, A. G. *L'orientation professionnelle aux Etats-Unis.* (Vocational guidance in the United States.) *Bull. trimes. Off. intercom. d'orient. prof. de Bruxelles*, 1931, 42, 5-18.—A summary and criticism of the methods of Brewer and H. D. Kitson.—R. Nihard (Liège).

2225. Christiaens, A. G. *Le service d'orientation professionnelle et le placement en apprentissage de la ville de Nantes (France).* (Vocational guidance

and the placement of apprentices in Nantes, France.) *Bull. trimes. Off. intercom. d'orient. prof. de Bruxelles*, 1932, 45, 10-35.—R. Nihard (Liège).

2226. Christiaens, A. G. *Le problème de l'éducabilité.* (The problem of educability.) *Bull. trimes. Off. intercom. d'orient. prof. de Bruxelles*, 1932, 48, 4-9.—There is no general educability, but that which is important in vocation guidance is the educability of certain aptitudes which are recognized as essential for such and such a vocation.—R. Nihard (Liège).

2227. Gemelli, A., & Ponzo, M. *Les facteurs psychophysiques qui prédisposent aux accidents de la rue et les perspectives d'organisation psychotechnique préventive.* (Predisposing psychophysical factors in street accidents and perspectives concerning preventive psychotechnical organization.) *J. de psychol.*, 1933, 30, 781-811.—Some of the more important factors which play a role in street accidents are insufficient distribution and concentration of attention, deficient reflective processes, ignorance and insufficient consciousness of personal limitations, and various sensory defects. A psychotechnical program for the prevention of street accidents includes the following: development of traffic ordinances which take cognizance of instinctive tendencies, public education, signals in harmony with psychophysical dispositions, selection of drivers, awakening drivers to a consciousness of their limitations (judgment of distance, speed, etc.), psychotechnical structuration of action in driver's maneuvers, determination of driver's aptitudes, elimination of drivers predisposed to accidents, psychotechnical collaboration in the establishment of facts concerning accidents (particularly gathering of statistics on causes), and psychotechnical consultation in the supervision of traffic modalities. The paper contains numerous references to the literature on accidents and their causes.—N. L. Munn (Pittsburgh).

2228. Goldstern, N., & Putnoky, F. *Die Wirtschaftlichkeit der Beleuchtung in Seiden- und Kunstseidenwebereien.* (The effectiveness of illumination in silk and artificial silk plants.) *Licht u. Lampe*, 1932, Pp. 38.—Four operators, each serving two looms, were studied under different types and intensities of illumination. As the strength of illumination increased production went up.—K. F. Muenzinger (Colorado).

2229. Hage, H. *Die psychotechnische Untersuchungsmethoden bei der Reichsbahn.* (The psychotechnic methods of testing by the state railway.) *Dtsch. Eisenbahner*, 1932, 8, 320.—A criticism of the methods used by the German railroads in testing their employees.—K. F. Muenzinger (Colorado).

2230. Harmon, F. L. Twelfth autumn conference of the Personnel Research Federation. *Person. J.*, 1934, 12, 243-247.—R. R. Willoughby (Clark).

2231. Horst, P. Increasing the efficiency of selection tests. *Person. J.*, 1934, 12, 254-259.—By the use of a new statistical procedure, called the "method of successive residuals," a sales ability test consisting of 117 objective items has been developed.

This test, when given to a group of specialized salesmen, was found to correlate .975 with measures of success on the job, and to have a reliability coefficient of .93.—(Courtesy *Person. J.*)

2232. Howard, C. H. *Commercial and professional placement: procedures in a public employment office.* *Person. J.*, 1934, 12, 273-280.—R. R. Willoughby (Clark).

2233. International Labor Bureau. *Die sozialen Auswirkungen der Rationalisierung.* (The social effects of rationalization.) *Stud. u. Ber., Ser. B* (Geneva), 1932, 18, Pp. 416. M. 8.—Rationalization of business and industry is defined as the systematic attempt to achieve the highest efficiency with a given amount of man power and raw material. The book contains a collection and discussion of facts, largely statistical, which bear on the questions how rationalization is achieved and how it affects the worker in regard to wages, length of working day, unemployment, and accidents.—K. F. Muenzinger (Colorado).

2234. Kiriara, H. *Functional periodicity.* *Rep. Inst. Sci. of Labour*, Kurasaki, Japan, 1932, No. 14. Pp. 53.—The daily production of 120 women in industry was recorded and 2410 women were questioned as to the effect of menstruation upon their efficiency. The author recognizes five types in this respect. The personality of the worker as well as the kind of work performed determine the particular type. As age increases less women report a decrease of their efficiency as a result of menstruation.—K. F. Muenzinger (Colorado).

2235. Kleffel, W. *Schuld oder Schuldlosigkeit bei Verkehrsunfällen.* (Guilt or absence of guilt in traffic accidents.) *Dtsch. Zsch. f. d. ges. gerichtl. Med.*, 1932, 20, 1-32.—A critical discussion of the legal and psychological aspects of traffic accidents.—K. F. Muenzinger (Colorado).

2236. Korngold, S. *Congres pour la securité de la route.* (Congress on highway safety.) *Trav. Humain*, 1933, 1, 465-469.—Sections were devoted to highway, mechanics, legislation, medicine and psychotechnics. In Paris accidents of private automobiles have increased 145% since 1923, while accidents due to buses and tramways have decreased 30% in the same period. The difference is attributed largely to the more careful selection of drivers in the latter case. In one company the employees eliminated in the course of training have dropped from 20 to 4%, since the introduction of selective tests. The congress recommended selection methods for truck drivers analogous to those for railroad employees. They also made recommendation as to signals and width of highways.—H. E. Burt (Ohio State).

2237. Lahy, J. M. *Le premier laboratoire psychotechnique ferroviaire français aux chemins de fer du nord.* (The first psychotechnical laboratory of the northern railroads.) *Trav. Humain*, 1933, 1, 409-431.—Tests are at present in use for selection of dispatchers, engineers, and certain types of clerical workers. It did not seem feasible to organize portable



laboratories, as was done on Russian railroads, because of the difficulty in including enough equipment, as well as the problem of adequately supervising the personnel. Many applicants at present are sent to the laboratory in Paris for examination. This laboratory is organized for group and individual examination, with only one test in each individual examination room. The tests include attention, reaction time, intelligence, and various motor tests. Research is conducted with a view to developing procedures for further jobs, and the administrative organization is described.—*H. E. Burt* (Ohio State).

2238. Lambert, R. *La psychotechnique et l'organisation scientifique du travail dans l'enseignement technique.* (Psychotechnology and the scientific organization of work in technical teaching.) *Bull. trimest. Off. intercom. d'orient. prof. de Bruxelles*, 1931, 44, 28-36.—*R. Nihard* (Liège).

2239. Latif, I. *The physiological basis of linguistic development and of the ontogeny of meaning. Part I.* *Psychol. Rev.*, 1934, 41, 55-85.—Infantile crying is a mere reflex response to stimuli, even though meaning is ascribed to it by the parent. "Significance" can be ascribed only to acts directed toward environmental objects. In the babbling period of the infant the mechanism of reduplication, or imitation of his own and others' sounds, paves the way for language. But meaning develops (1) from a gradual substitution of words or part reactions for total situations, i.e., symbolism; (2) from the objective and subjective reference given to objects, or empathy; and (3) from the development of gesture, or the substitution of part reactions for completed responses.—*A. G. Bills* (Chicago).

2240. Lorenz, E. *Zur Psychologie der industriellen Gruppenarbeit.* (The psychology of group work in industry.) *Zsch. f. angew. Psychol.*, 1933, 45, 1-45.—This investigation was carried out in a room containing 45 groups of women who were making rubber gymnasium shoes. Each group of six workers performed the complete cycle of hand work. Hourly records of both quantity and quality of work were kept. The quantity rose rapidly during the first hour, remained the same during the next six hours, and rose again during the last hour of the working day. The last rise was due to the necessity of producing a prescribed number of units each day. Errors of attention were largest during the first three hours. Skill decreased considerably during the last three hours. The groups were also studied as dynamic units, in regard both to the relation of the members of a group to each other and to the influence of one group upon a neighboring one. Some of the results were: Two groups of similar efficiency did not compete with each other. A good group between two poor ones had a tendency to lower its efficiency, while a poor group between two good ones had the opposite tendency. The behavior of the individual worker in a group showed that certain character traits are at least as important as manual skill in the selection of such workers.—*K. F. Muenzinger* (Colorado).

2241. Lovett, R. F., & Richardson, M. W. *Selecting sales personnel: the significance of various types of test material.* *Person. J.*, 1934, 12, 248-253.—A test of sales ability and one of sales managerial ability were constructed empirically by relating about 900 items to a number of criteria of success. Items which did not differentiate between good and poor salesmen were discarded. Retest reliability of each test was .74. The correlation between sales and sales managerial ability was only .30.—(Courtesy *Person. J.*)

2242. Luctator. *Die psychotechnische Prüfung.* (The psychotechnical test.) *Dtsch. Eisenbahner*, 1932, 8, 297-298.—A criticism of the methods used by the German railroads in selecting their employees by tests.—*K. F. Muenzinger* (Colorado).

2243. Mallart, J. *La psicología aplicada al trabajo.* (Psychology applied to work.) *Med. d. trab. e hig. indus.*, 1933, 4, 211-225.—The author discusses the relation of the general field of psychology to industrial activity. He distinguishes between (1) the aggregate of principles which explain the psychological activities which occur, either as antecedents or consequences, in the work situation, and (2) the application of known psychological principles to a work situation. The first of these is designated the psychology of work, the second psychology applied to work. A discussion follows, from the point of view of psychology applied to work, in relation to (a) vocational guidance, (b) selection of personnel, (c) the apprentice period, (d) the organization of work, (e) the treatment of personnel problems, and (f) the prevention of industrial accidents.—*J. W. Nagge* (Chicago).

2244. Molchanova, O., Ezhova, E., Shchepkin, N., Vereshchagin, I., Vorobiev, A., Legoun, A., Nikolskaya, P., & Chervonny, S. [Determination of daily respiratory exchange with construction workers.] *Prob. nut.*, 1932, 1, 1-7.—Basal metabolism by the Douglas-Haldane method gave the following approximate consumption in calories: brick carriers, 5.36; carpenters, 4.50; masons, 3.87; mechanics, 3.26.—*H. E. Burt* (Ohio State).

2245. Molchanova, O., Ezhova, E., Shchepkin, N., Legoun, A., Chervonny, S., & Nikolskaya, P. [Study of the daily energy expenditure of metallurgy workers determined by respiratory exchange in rest and work.] *Prob. nut.*, 1932, 1, 7-17.—The energy expenditure seemed somewhat related to the "mechanization" of the work. Approximate calories consumed are as follows: lathe workers 3.00, blacksmiths 3.50, foundrymen 4.00.—*H. E. Burt* (Ohio State).

2246. Rupp, H. *L'orientation professionnelle des bacheliers.* (Vocational guidance of bachelors.) *Trav. Humain*, 1933, 1, 399-408.—Preliminary information is obtained by a rather complicated questionnaire, dealing with outside activities and family background, and also requiring the individual to evaluate himself on a considerable number of qualities, such as sociability and optimism. He also writes individual expositions on such subjects as "What is your strongest and your weakest point?" Tests used include definition, completion tests, tests of spatial perception (as in continuing an incomplete design or

drawing), figures rotated from normal position, locating designated numbers in a large group of numbers, and memory in giving rhymes as rapidly as possible. After this information is gathered collectively, individual interviews are conducted.—*H. E. Burt* (Ohio State).

2247. *Simoneit, M. Wehrpsychologie. Ein Abriss ihrer Probleme und praktischen Folgerungen.* (Military psychology. An abstract of its problems and of its practical consequences.) Berlin: Bernard & Graefe, 1933. Pp. 161. RM. 3.90.—This is a study in a new field of applied psychology, and contains ideas about dealing with men in military fashion and about the directing of troops. The general concepts are taken from modern characterology, which has been practiced for many years in German military-psychological practice. The following problems are discussed: psychology of military organization, psychological advantages and disadvantages of the different military systems, certain psychological features of the different types of military activity. The environment and task of the soldier are described and the relation of men to this environment is studied. There are discussed further problems of the characterological selection of men, which has been developed in Germany in a systematic and yet sufficiently dynamic form, problems of military education, of the psychology of masses, of community life and its disturbances, of military propaganda and warfare.—*M. Simoneit* (Berlin).

2248. *Strong, E. K. Manual for vocational interest blank.* Stanford University, Calif.: Stanford Univ. Press, 1933. Pp. 15.—The following items are considered briefly: occupational interests that can be determined by the test, criterion groups, instructions for giving test, scoring the blank, ratings, to whom the test should be given, interest maturity, reliability, validity, revised scales and norms, and norms on 420 items. Price list of blanks is given.—*R. H. Brown* (Clark).

2249. *Van Biervliet, J. J. Rapport sur nos recherches à l'Office Intercommunal d'Orientation Professionnelle.* (Report of our researches at the Intercommunal Office for Vocational Guidance.) *Bull. trimes. Off. d'orient. prof. de Bruxelles*, 1931, 42, 1-4.—The author presents the results of special aptitude tests for modistes.—*R. Nihard* (Liège).

2250. *Van Biervliet, J. J. Recherches sur les aptitudes à la profession de couturière.* (Investigations of the aptitudes for the vocation of dressmaker.) *Bull. trimes. Off. d'orient. prof. de Bruxelles*, 1932, 46, 4-6.—*R. Nihard* (Liège).

2251. *Vinogradov, M. J., Drobysheva, H. S., Spiridonova, F. V., Salesskaya, E. H., Solovieva, I. B., Shalutka, I. B., & Sorokin, V. F. [Physiological study of permanent work in three shifts.] Fiziol. zh. U. S. S. R.*, 1933, 16, 159-179.—Measures of the respiration, circulation and certain aspects of blood for lathe workers in day, evening and night shifts show the greatest fatigue for the evening shift. As to the other two shifts, women show the greatest loss

in the day and men in the night.—*H. E. Burt* (Ohio State).

2252. *Walker, G. F. The injured workman.* Bristol: John Wright & Sons, Ltd., 1933. Pp. 168.—The author and his collaborators have presented useful advice concerning the types of workmen who apply for compensation. Some of these cases are simple and straightforward, but others are rendered complex by the workman's belief that his injuries are more serious than they actually are, and by "ergophobia" and malingering. In the first chapter the main features of the Workmen's Compensation Act are described and advice given concerning the conduct and behavior of the medical witness. The second chapter is devoted to a description of the injured workman and the effects of shock, rusting, brooding, neurasthenia, hysteria and malingering on his physique, personality and temperament. Chapters have been contributed by a general surgeon, an ear, nose and throat surgeon, and an ophthalmic surgeon.—*R. J. Beitel, Jr.* (Clark).

2253. *Wojciechowski, J. Appareil pour l'étude de l'attention utilisé dans les laboratoires ferroviaires polonais.* (Apparatus for the study of attention used in Polish railway laboratories.) *Trav. Humain*, 1933, 1, 459-460.—Six parallel tracks have six small cars moving on them according to an irregular schedule. Each of these is controlled by a lever operated by the subject and his task is to stop each car just before it strikes a given indicator and makes an electric contact. Errors are recorded electrically. The total errors in five cycles which comprise 80 possible reactions range from 10 to 40, with the 50th percentile at about 27.—*H. E. Burt* (Ohio State).

[See also abstracts 1973, 2151, 2281.]

#### EDUCATIONAL PSYCHOLOGY

2254. *Allen, G. E. Plane geometry and character education.* *J. Educ. Sociol.*, 1933, 7, 254-258.—Two groups of eleventh-grade pupils paired for achievement, intelligence, mathematical ability, and initial scores on the Bernreuter Personality Inventory, Maller Self-Marking Test, Strong Vocational Interest Blank, and the Watson Test of Public Opinion, studied plane geometry throughout the school year, one group by the traditional recitation method and the other with individualized instruction. Retests at the end of the year showed that the experimental group (individual instruction) was definitely superior in mathematical achievement, also that this group showed small but consistently greater gains in the direction of more emotional stability, more extroversion, more submission, more self-sufficiency, more honesty, more broad-mindedness, and less mathematical interest than did the control group.—*F. D. McTeer* (Detroit Municipal University).

2255. *Anderson, R. G. Concerning school psychologists.* *Psychol. Clin.*, 1933, 22, 41-47.—The author faces the question why school men are so often dissatisfied with the work of school psychologists. She concludes that this is due in part to the fact that

the school psychologist often merely makes diagnoses without prescribing and supervising treatment. Other factors are the type of training the school psychologist has usually had and the lack of practical experience.—*J. T. Metcalf* (Vermont).

2256. **Bailey, E. W., Laton, A. D., & Bishop, E. L.** *Outline for study of children in schools.* New York: McGraw-Hill, 1933. Pp. 248. \$2.25.—The authors have here given a manual whose purpose is to guide in the study of children all who are now or may soon become responsible for their formal or informal education. Following a discussion of "Why study children" it provides a basis for description and appraisal of children by parents and teachers, shows how everyday material is used, and gives detailed discussions and outlines for the study of preschool, elementary, and secondary school children. Each study is accompanied by illustrations to clarify directions, and by ample blank space for recording observations, comments, and reports. Actual cases are reported for study, and helps for interpretation are given. Parent cooperation is shown to be necessary. In Appendix A a tabular summary of aids in interpretation of observations contains much information as well as guiding outlines. Appendix B deals in tabular form and outline with characteristics of age levels and the developmental progress of children. An interpretation of psychometric tests is included and a two-page bibliography is appended.—*E. V. Brill* (Malone, N. Y.)

2257. **Baldrian, R.** *Können ist Macht.* (Ability is power.) *Int. Zsch. f. Indiv.-psychol.*, 1933, 11, 396-398.—A plea for the use of practical problems in class-room instruction. Three examples taken from arithmetic note books of pupils in home economics and other classes are presented. The computation of the selling price of a dress required computing the cost of materials used, the cost of labor, and a 25% profit. The total time consumed and the rate per hour in traveling by horse the distance from Vienna to Salzburg involved the use of a newspaper report of the distances between the cities along the route. Included in the discussion were considerations of horse breeding, dangers in sports, etc. Interest is stressed as the necessary basis for learning.—*O. N. de Weerd* (Beloit).

2258. **Billett, R. O.** *Provisions for individual differences, marking and promotion.* *Bull. Nat. Survey Secondary Educ.*, 1932, No. 17, Monog. No. 13. Washington: Govt. Printing Office, 1933. Pp. 472.—This monograph in the series of the National Survey represents an elaborate study of what high schools are doing in providing for individual differences of their pupils, a circumstance well worthy of investigation when one reflects, in the first place, that whereas 30 years ago only about 10% of the population of high school age actually attended high school, at the present time more than 50% are thus enrolled; and in the second place, that whereas high school pupils a generation ago were fairly homogeneous in their abilities, they have become increasingly heterogeneous in every measurable respect. This survey embodies

the results of an inquiry conducted among a final total of 8,594 high schools in all the states. That provision for individual abilities is not yet widespread among these schools is indicated by the fact that, with the exception of variation in the number of subjects a pupil may carry and of the special coaching of slow pupils, less than half the schools report any technique. A total of 28 different techniques appeared from the tabulation; these the investigator was finally able to combine under one or another of the three following methods: (1) homogeneous grouping, (2) special classes, and (3) the unit assignment. In a supplementary follow-up inquiry, intensive study was made of the techniques employed in selected schools known to be using some of the plans with unusual success. Part 1 of the monograph, comprising half its bulk, is devoted to homogeneous grouping and special classes; Part 2 to plans characterized by the unit assignment, including chapters on the Morrison plan, the Dalton plan, the Winnetka plan, the problem method, differentiated assignments, the laboratory plan, long-unit assignments, the contract plan, the project method, and individualized instruction; Part 3 to the planning of a high school program to provide for individual differences; and Part 4 to a survey of marking and promotion as carried on in selected secondary systems.—*L. A. Averill* (Worcester State Teachers College).

2259. **Blackhurst, J. H.** *Do we measure in education?* *J. Educ. Res.*, 1933, 27, 273-276.—Although the author comes to the conclusion that we do not measure in education, still he believes that this should not discourage us from improving the processes of testing.—*S. W. Fernberger* (Pennsylvania).

2260. **Boney, C. DeW.** *A study of library reading in the primary grades.* *Teach. Coll. Contrib. Educ.*, 1933, No. 578. Pp. vi + 70.—The purpose is "to examine (1) the objectives for library reading, and (2) the techniques used for conducting the library reading progress." The data were obtained from a selected bibliography of 25 professional publications, 47 school manuals giving courses of study, and a questionnaire returned by 254 (90%) teachers. "The several trends show the need for a program that allows the child freedom to make selections according to his interests, to read at his own volition, and to share the responsibility for conducting the whole program with the teacher." A bibliography is given. The appendix gives the questionnaire used.—*J. M. Stalnaker* (Chicago).

2261. **Campbell, D. W., & Stover, G. F.** *Teaching international-mindedness in the social studies.* *J. Educ. Sociol.*, 1933, 7, 244-248.—In one of two paired groups (40 pairs) of high school pupils studying economic geography, class discussions for nineteen weeks were planned to develop increased respect for Germans and Chinese and increased opposition toward war. Initial and final scores for each pupil on alternate forms of the relevant Thurstone attitude scales and the Neumann-Kulp-Davidson Test of International Attitudes show that international and interracial attitudes can be influenced by this type of



instruction. Comparison of other paired groups (24 pairs of girls, and 14 pairs of boys) showed that the use of slides added appreciably to the effectiveness of such education.—*F. D. McTeer* (Detroit Municipal University).

2262. Christiaens, A. G. *La sélection des mieux doués.* (The selection of the gifted.) *Bull. trimes. Off. intercom. d'orient. prof. de Bruxelles*, 1932, 47, 1-11.—A presentation of what has been done in Belgium for the selection of gifted children of poor circumstances to whom the Foundation for the Gifted gives the means for pursuing their post-primary studies.—*R. Nihard* (Liège).

2263. Cowley, E. B. Technical vocabularies for plane and solid geometry. *J. Educ. Res.*, 1934, 27, 344-354.—Studies of the vocabularies for plane and solid geometry by means of the following procedures: examination and evaluation of three recent vocabularies for geometry; discriminating word studies of six textbooks; results of a questionnaire from more than 3,000 high school students; and technical vocabularies. The author finds that some of the recently published vocabulary studies "bear unmistakable evidence of poor workmanship." The word studies indicate a tendency in recent years toward vocabulary simplification. Basic and secondary vocabularies are given.—*S. W. Fernberger* (Pennsylvania).

2264. Cressman, E. W. Workbook versus oral instruction. *J. Educ. Sociol.*, 1933, 7, 250-253.—Three sections of seventh-grade pupils, 37 in each group, were matched for intelligence and ethical judgment as measured by the "Pre-view" multiple choice test from the workbook, and the "Good Citizenship Test" of the Character Education Inquiry. One group spent 17 weekly periods of one hour each in study and written comment on the cases in the workbook, "What's the Right Thing To Do?" by Charters, Rice, and Beck; the second group listened to the teacher's oral presentation of the workbook problems and responded with discussion; the third group had no ethical instruction. When the character tests were repeated after the training period, both instructed groups showed improvement, with the workbook group ranking higher.—*F. D. McTeer* (Detroit Municipal University).

2265. Danzinger, L. *Der Schulreifetest mit einer Untersuchung über die Ursachen des Versagens im ersten Schuljahr.* (Maturity test for entering school with an investigation of the causes of failure in the first school year.) *Wien. Arb. z. päd. Psychol.*, 1933, Heft 9. Pp. 56. RM. 3.—This is a continuation of the tests for small children made at the Psychological Institute in Vienna. Before elaboration of the final test series observations and examinations were made with children who probably would not be able to meet properly the demands of the first school year, in order to be sure that the test would examine the formal capacities necessary for mastering the school situation. Interesting relations between activity and school performance were shown. Among the children who would fail at school are others than those whose intellectual capacities are not sufficient to master

the material to be learned. In 60% of the cases the formal conditions for the intellectual performances are present, in 49% the children are extremely passive, in 11% the children show an undisciplined behavior and are not able to concentrate. On the basis of these results and of numerous experimental investigations tests for entering school have been composed which examine mastery of the material, ability of imitation, memory, the capacity to grasp causal and simple mechanical relations, perseverance, concentration, and self-dependence. The book contains an exact description of the tasks and the expected reactions, advice about giving the tests, and examples for the quantitative and qualitative evaluation of the results, as well as a discussion of the prognostic value of the results.—*L. Dansinger* (Vienna).

2266. Fritz, R. A. Predicting college marks and teaching success for students in a teachers college. *Techné*, 1933, 17, 21-23.—From a study of intelligence, aptitude, age, teaching experience, occupation of parents, and high-school records, the author concludes that the psychological examination and aptitude test were the only two instruments that appeared to have value in predicting college success. The psychological examination gave a correlation of .73 with the aptitude test.—(Courtesy *J. Educ. Res.*)

2267. Good, C. V. Doctors' theses under way in education, 1933-1934. *J. Educ. Res.*, 1934, 27, 380-400.—List of 457 problems for each of which is given the name of the investigator, the title of the problem, the place at which it is being carried on, and frequently the responsible professor.—*S. W. Fernberger* (Pennsylvania).

2268. Gray, R. A. Bibliography of research studies in education, 1931-1932. *U. S. Off. Educ. Bull.*, 1933, No. 6. Pp. 296. \$0.20.—*R. R. Willoughby* (Clark).

2269. Hackenberg, J. L., Yeich, E. B., & Weisenfluh, L. A. The effect of athletics on certain character studies. *J. Educ. Sociol.*, 1933, 7, 264-268.—In one high school the ninth and tenth year students were divided into three groups, active participants in athletics, interested spectators, and non-participants, either uninterested or antagonistic. Members of these groups were paired for mental age, curriculum, sex, school grade, scholastic achievement, location in district, and initial scores on six different tests from the Character Education Inquiry. Retests at the end of the school year showed greater gains for the athletic group than for either of the other groups. In two other schools groups of athletes and non-athletes matched for sex, grade, and intelligence were rated by teachers in fellowship, obedience, and honesty. Differences between the groups were small and inconsistent.—*F. D. McTeer* (Detroit Municipal University).

2270. Ide, G. G. The public school and the problem child. *Psychol. Clin.*, 1933, 22, 53-60.—A description is first given of the organization and methods of the Division of Special Education of the public school system of Philadelphia. This is fol-

lowed by an account of the varied types of problem case with which it deals. Special attention is given to problems of backwardness and truancy, to disciplinary problems, and to children who suffer from physical handicaps, from antipathies, and from extreme egocentrism.—*J. T. Metcalf* (Vermont).

2271. Kelley, V. H. An experimental study of certain techniques for testing word meanings. *J. Educ. Res.*, 1933, 27, 277-282.—Results of a multiple-choice test of word meanings compared with the results of a same-opposite-neither, a matching, and a multiple-choice-sentence test. A statistical treatment of the results indicates that the same-opposite-neither test and the multiple-choice-sentence test have a slightly lower validity than the other two. The general conclusion is reached that techniques for testing word meaning knowledge must be greatly improved before satisfactory estimates of general word meaning knowledge can be made.—*S. W. Fernberger* (Pennsylvania).

2272. Kelly, W. A. Educational psychology. New York: Bruce Pub. Co., 1933. Pp. 501. \$2.40.—The book is intended for use in Catholic colleges and universities. The author's purpose "is to present a simple exposition of educational theory and practice in the light of the basic and leading principles of Scholastic psychology." Chapter headings include *The Soul, The Body, Sensation, Instincts, The Intellect, The Will, Constructive Discipline, Character Formation*. The final chapter deals with mental hygiene. There is an appendix in which true-false and completion tests for the material in each chapter, a vocabulary test, and directions for term papers and book reports are given.—*A. Bernstein* (Brooklyn, N. Y.)

2273. Kniss, F. R., Robb, E. K., & Glatfelter, E. A. The results of the incidental method of instruction in character education. *J. Educ. Sociol.*, 1933, 7, 259-263.—In three schools when groups were paired for mental age, socio-economic status, and school grade (seventh to tenth), incidental instruction in morals was found to be "ineffectual in improving moral judgment and in furthering moral conduct." Both teacher and pupil ratings as well as various character tests were used to measure results.—*F. D. McTeer* (Detroit Municipal University).

2274. Meek, E. B. The effect of Latin upon character traits. *J. Educ. Sociol.*, 1933, 7, 241-243.—Tenth-grade Latin students were paired with non-Latin students for age, sex, intelligence, and composite school grade. All of the pupils had studied the same subjects under the same teachers throughout nine school years with the exception of one year's Latin in the case of the experimental group. The Latin students made higher scores on Hill's Test in Civic Attitudes; they were more pacifistic according to Thurstone's Attitude Toward War Scale, and more liberal according to the Neumann-Kulp-Davidson Test of International Attitudes.—*F. D. McTeer* (Detroit Municipal University).

2275. Moore, H. K. The results of a "character-building" talk. *High School Teacher*, 1931, 7, 387-

388.—After a preacher had delivered a "character-building" talk to the assembly in a school for problem boys one of the teachers prepared a test on the talk which he gave to one home-room group. The best, median and poorest answers were quoted for each question. The poorest answer, representing about one-third of the group in each case, was "I don't know." "The talk as a whole was remembered by most of the boys in a fragmentary, incorrect, superficial and, in some cases, a distorted form." Despite this fact the speech was believed by the investigator to be superior to the general run. "If character-building speeches must be made it would seem best to confine the remarks to items in their experience on which they are apt to make errors."—*H. K. Moore* (Edison School).

2276. Moore, H. K. The advent of psychology as a unit in junior high school science. *Sci. Educ.*, 1932, 16, 199-200.—Reviews some recent tendencies for units in psychology and mental health to appear in courses of study and textbooks in general science. Gives the general aims for such a unit and mentions some units which have been worked out in Cleveland and in Cleveland's Thomas A. Edison School for problem boys.—*H. K. Moore* (Edison School).

2277. Moore, M. W. A study of young high school graduates. *Teach. Coll. Contrib. Educ.*, 1933, No. 583. Pp. x + 89.—308 students who graduated from Pennsylvania high schools in 1928 at the age of less than 16 are compared with all students who graduated (27,000). The study is based on a four-year cumulative record; the chief source of data is the material which was gathered by the Carnegie Foundation in their Pennsylvania study. The young group has a greater proportion of foreign-born parents, fathers on higher occupational levels, parents better educated, more of the group attend college (54% to 34%), they average  $\frac{1}{2}$   $\sigma$  higher on high school and college intelligence and achievement tests and maintain their superiority throughout college. The 22 "gifted" students (Otis Intelligence plus a battery of five achievement tests) of the young group are compared with the 319 older gifted children. "So far as college achievement as measured by objective tests and college grades is concerned, it is desirable to encourage gifted students to enter college at an age as young as 15 or 16 years." A selected bibliography lists 39 titles.—*J. M. Stalnaker* (Chicago).

2278. Myers, C. E. Length of school term in relation to attendance and costs. *J. Educ. Res.*, 1933, 27, 247-255.—Study of school terms reported from 446 counties in seven southern states indicates that there have been positive trends toward longer school terms and better attendance when one compares the data for the year 1925-1926 with the year 1929-1930.—*S. W. Fernberger* (Pennsylvania).

2279. Myers, C. S. A psychological regard of medical education. *Lancet*, 1933, 225, 1075-1080.—The Bradshaw lecture, delivered by the principal of the National Institute of Industrial Psychology in England. Differences in innate aptitudes among medical students should be better recognized. Sub-

ject-matter in medical school courses should be justified only on grounds of its usefulness to the clinician. The student should learn of the relations between mental and bodily activity, as in the intimate connection of the emotions with endocrine and visceral activity; of the psychology of suggestion and other methods of psychotherapy; and of the distribution of intelligence. The staff members of medical schools need to be more stringently selected on the basis of their ability to teach.—D. J. Ingle (Minnesota).

2280. Parker, H. T. **Intelligence and scholastic attainment.** *Austral. Council Educ. Res. Ser.*, 1932, No. 15. Pp. 66.—This is an investigation into the educational proficiency of a group of subnormal children in reading, arithmetic, writing, and spelling, as compared with standards for normal children. In general, greater educational progress is shown than intelligence increase, yet after an equal number of years of schooling, the rate of learning for children of IQ 65 is relatively greater than for those of IQ 75. Girls have a higher rate of learning than boys. It is uneconomical to begin instruction until one year after reaching a minimum mental age of 4.5 years. Not much scholastic progress is possible for IQ's below 50. Subnormals and normals of the same mental age cannot work together well, even if the subnormal has an EQ of 100 or over, because his progress will be slower. On the other hand, a low-IQ individual who has been in school many years will have an EQ far above a normal pupil of the same mental age who has just entered.—E. A. Kirkpatrick (Leominster, Mass.)

2281. Partoes, M. **Où en est l'orientation professionnelle des filles?** (The present status of the vocational guidance of girls.) *Bull. trimes. Off. intercom. d'orient. prof. de Bruxelles*, 1931, 44, 13-24.—This report was given at the International Congress for Technical Teaching at Paris, 1931, and describes principally the activity of the Office for the Vocational Guidance of Feminine Christian Work in the Arrondissement of Brussels.—R. Nihard (Liège).

2282. Peters, C. C. **The potency of instruction in character education. Summary of the Penn State experiments on the influence of instruction in character education.** *J. Educ. Sociol.*, 1933, 7, 214-223; 269-272.—"Character," as defined by the editor, has three principal sources, social pressure operating through social suggestion and social radiation, direct experience operating through personal trial and error, and vicarious experience operating through reflection, discussion, and critical consideration of the narrations of the experiences of others. The management of this third source is the province of instruction. In the reports presented the method of evaluating various types of instruction in character education was the comparison of the achievement of two groups paired at the beginning of the experiment for ability and previous accomplishment, one of these groups having received in the course of the experiment special instruction of the type studied. Results of these experiments are presented in individual reports (see VIII: 2177, 2190, 2254, 2261, 2264, 2269, 2273, 2274, and 2286). Considering these experiments as

a whole the editor points out the following conclusions: (1) "The consistency with which the differences point in the same direction indicates high reliability for the finding that systematic moral instruction can aid in the development of character." (2) "It is indicated that incidental moral instruction is ineffectual in modifying the sort of conduct we attempted to measure." (3) "That athletics can make desirable contributions toward character development is indicated with a low reliability, and that character traits can be made to accrue as by-products from certain methods of teaching academic subjects is strongly indicated."—F. D. McTeer (Detroit Municipal University).

2283. Plant, J. S. **The mental health of the teacher.** *Ment. Hygiene*, 1934, 18, 1-15.—Since life in the school-room involves human relationships, it is essential that the mental health of the teacher be emphasized in her selection. This selection should occur during the first or second year of normal school. Five positive essentials for the attainment of mental health are outlined. The attainment of mental health is a personal matter, although the psychiatrist may be of some assistance in helping one acquire an objective view of one's problems.—H. S. Clapp (Children's Village, Dobbs Ferry, N. Y.)

2284. Pollitzer, M. **The teacher's relation to adolescents.** *Prog. Educ.*, 1933, 10, 425-430.—R. R. Willoughby (Clark).

2285. Remmers, H. H. **Learning, effort, and attitudes as affected by three methods of instruction in elementary psychology.** *Bull. Purdue Univ.*, 1933, 33 (*Stud. Higher Educ.*, 21). Pp. 48.—Controlled experiments over a three-year period were carried out to evaluate three different methods of instruction. In all a total of 1,134 students were involved in the experiments. The three methods evaluated were: (1) lecture-recitation, two lectures per week for groups of 150 to 170 students with one recitation per week when these larger groups were divided into four separate classes; (2) small recitation groups of 35 to 40 students meeting three times a week; and (3) lectures only for a group of 125 meeting three times a week. Some of the more significant conclusions are as follows: (1) Average learning tends to be slightly greater for the larger groups. (2) Retention appears to be somewhat more permanent for the larger group situation. (3) Learning of the abler students is approximately the same under all three methods. (4) Learning of the less able students is somewhat better under the large group situation. (5) Student attitudes tend slightly to favor the small recitation class, but also tend to favor the method by which the students are taught. (6) Attitude toward the same instructor is significantly affected by the experimental variable. (7) With the student enrollment and instructor load of three years as a basis, the potential saving in cost of instruction is conservatively estimated at from \$3500 to \$4000 if the experimental findings are applied.—H. H. Remmers (Purdue).

2286. Robb, E. K., & Faust, J. F. **The effect of direct instruction.** *J. Educ. Sociol.*, 1933, 7, 237-240.



—Two sections of high-school seniors were matched for intelligence and socio-economic status. In connection with a civics course one section had eight weeks' instruction in ethics, while the other had only the regular instruction in problems of democracy. Before-and-after tests, using Kohs' Ethical Discrimination Test, teacher ratings on the Character Education Inquiry Conduct Record Sheet, and pupil ratings on industriousness, leadership, honesty, courtesy, and loyalty, show small but consistent differences in favor of the experimental group. In another experiment two groups of ninth-grade pupils were matched for age, grade, curriculum, and intelligence; one group had a series of 18 home-room programs devoted to the presentation and discussion of moral problems. The results as measured by four different test scales are inconclusive; two scales show greater gains in the control group, while three favor the instructed group.—*F. D. McTeer* (Detroit Municipal University).

2287. Sackett, E. B. *Intelligence and Spanish homes as factors in Spanish achievement in the Canal Zone.* *J. Educ. Res.*, 1934, 27, 355-363.—From a statistical study, the author finds that the better Canal Zone pupils apparently are continuing their study of Spanish into the upper grades. The correlation between intelligence and Spanish scores is lower in the Canal Zone than would be expected from studies made elsewhere, and it is lower than in the cases of certain other subject matter tests given in the Canal Zone.—*S. W. Fernberger* (Pennsylvania).

2288. Seay, M. F. *Freshman week in institutions of higher learning of the Association of Colleges and Secondary Schools of the Southern States.* *Ky. Person. Bull.*, 1934, No. 10, 1-2.—An analysis of the replies from questionnaires sent to the registrars or deans of all institutions belonging to the Association of Colleges and Secondary Schools of the Southern States shows that the administration of placement and aptitude tests is an important phase of freshman week. Data concerning the types of tests given shows that only psychological and English tests are in common use, although a few institutions have increased the types of placement and aptitude tests administered during the past two years.—*H. W. Karn* (Clark).

2289. Selz, O. *Ergebnisse einer Umfrage über Hochschulstudium und Examensvorbereitung.* (Results of a questionnaire on study in college and preparation for examinations.) *Zsch. f. angew. Psychol.*, 1933, 45, 172-181.—A list of 35 questions was answered by 48 students of the College of Commerce at Mannheim immediately after they had finished their final examination. The questions were concerned with such topics as the taking of notes, attendance at lectures, reading of supplementary material, schedule of work, and systematic reviews. The results are discussed with reference to the outcome of the final examination.—*K. F. Muensinger* (Colorado).

2290. Stalnaker, J. M. *Tests of acceptable and reliable habits of writing.* *English J.*, 1934, 23, 37-47.—The author describes the tests developed in the Humanities Division of the University of Chicago

to determine the ability of students to write acceptably. Objective tests on spelling, vocabulary, dictionary abbreviations, grammar, punctuation, diction, sentence-structure faults, footnotes, wordiness, paragraph unity, information concerning reference indexes, judgment in the selection of references, etc., were used. An essay section of the usual sort was included. The author challenges many of the commonly accepted ideas of what ought to be the goal of English teaching.—*S. M. Stoke* (Mount Holyoke).

2291. Stephens, J. M. *The influence of the school on the individual.* Ann Arbor: Edwards Bros., 1933. Pp. 106.—This lithoprint is devoted to a study of the manner in which the school influences success and achievement. In essence, it is an enumeration and critique of the salient conclusions found by great numbers of investigators in the field of education, including studies of attendance, school costs, size of school, rating of school, intelligence, grouping, size of class, methods of teaching, supervised study, ability of teachers, etc. The studies are presented in column form for ease of comparison and analysis. The author concludes that the most striking fact revealed is the very slight relationship of achievement to any of the factors just enumerated. He suggests that much of educational achievement may be attributed to maturation, to factors not in control of the school, and to factors inherent in any program of instruction, regardless of its supposed efficiency and elaborateness. A great deal of emphasis is placed upon the results of the author's examination of the literature on heredity and environment, to give point to his main thesis regarding the apparent indifference of the conventional factors in the educational set-up. Exhaustive bibliographies are included.—*L. A. Averill* (Worcester State Teachers College).

2292. Terry, P. W. *How students study for three types of objective tests.* *J. Educ. Res.*, 1934, 27, 333-343.—Study of 135 students in 5 classes in psychology at the University of Alabama in 1932. The students were informed that three types of test would be used: recall, completion, and true-false types. Lists of methods which the students checked as methods of study were employed. It was found that a decided majority of the students studied differently for the three kinds of objective tests. "The kind of test to be given, if the students know it in advance, determines in large measure both what and how they study."—*S. W. Fernberger* (Pennsylvania).

2293. Uhl, W. L. *Some neglected aspects of educational measurement.* *J. Educ. Res.*, 1933, 27, 241-246.—The need is discussed for educational measurement in the following fields and activities: problem solving, acquisition of knowledge, acquisition of skill, social competence, creative activity, and esthetic experiencing.—*S. W. Fernberger* (Pennsylvania).

2294. Wagner, M. E. *Introducing the learning curve to high-school juniors.* *J. Educ. Res.*, 1933, 27, 256-258.—Cancellation of certain letters of pied type was given as a problem to 87 high-school juniors. The learning curves were constructed for the average

and the individual scores to acquaint the students with such concepts as upward trend, plateaus, rapid initial rise, and the like.—*S. W. Fernberger* (Pennsylvania).

2295. **Watson, M. E.** Mental hygiene implications of student relationships with the dean of women. *Ment. Hygiene*, 1934, 18, 83-91.—Examples of mal-adjusted school and college students are given to point out the need on the campus of a psychiatrist, psychologist, and social workers with a social-psychiatric point of view. This staff would not only assist the dean in the treatment of difficult problems, but would also conduct courses which would prepare the student for facing life.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

2296. **Watson, W. E.** Predicting first semester scholarship. *Ky. Person. Bull.*, 1934, No. 10.—The purpose of this investigation was to get some idea of the weight of different criteria for predicting scholarship the first semester among students entering the University of Kentucky. The four criteria to be compared were high-school scholarship, an intelligence test, an English achievement test, and a mathematics achievement test. The procedure of the multiple regression equation was used in determining the relative weight of each of the factors when all four were combined in the prediction of average scholarship the first semester. The final form of the equation shows that the best prediction would be obtained by multiplying the student's high school grade by .04, his intelligence test by .20, his English test by .02, and his mathematics test by .08.—*H. W. Karn* (Clark).

2297. **Wile, I. S.** Sex education in relation to mental and social hygiene. *Ment. Hygiene*, 1934, 18, 40-50.—Because of the individual's social orientation, mental hygiene and social hygiene are both concerned with sex education. The prevention of sexual conflicts is of utmost importance in sex education. Sex education of the individual is concerned with the problem of venereal prophylaxis, and for that reason it is of primary importance to the group.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

2298. **Willey, M. M.** Recent social changes and educational research. *J. Educ. Res.*, 1934, 27, 321-332.—Discussion of the effects of social changes reported by the committee of the President of the United States in 1929 upon educational research. The discussion is concerned with such topics as the significance of population trends of mass communication and of social thinking. A series of problems for education are raised by this report.—*S. W. Fernberger* (Pennsylvania).

[See also abstracts 1957, 2124, 2167, 2170, 2177, 2179, 2190, 2226, 2330, 2374.]

#### BIOMETRY AND STATISTICS

2299. **Abernethy, J. R.** On the elimination of systematic errors due to grouping. *Ann. Math. Stat.*, 1933, 4, 263-277.—This paper is an extension of the earlier work of W. F. Sheppard and of H. C.

Carver on the calculation of constants from grouped data when we eliminate part of the error generated by replacing the moments of the original distribution by the corresponding moments of the grouped distribution. The paper treats two cases, discrete and continuous variables.—*J. W. Dunlap* (Fordham).

2300. **Brown, G. M.** On sampling from compound populations. *Ann. Math. Stat.*, 1933, 4, 288-342.—The paper investigates the sampling problem in the case of compound distribution functions (1) when we do not know the proportion contributed to the total frequency by each of the two components of the parent population, and (2) when we know the proportion contributed to the total frequency of a sample by each of the two components.—*J. W. Dunlap* (Fordham).

2301. **Burks, B. S.** A statistical method for estimating the distribution of sizes of completed fraternities in a population represented by a random sampling of individuals. *J. Amer. Stat. Asso.*, 1933, 28, 388-394.—"A method is presented for estimating the distribution and average size of completed families for the total population from which a sample of individuals belonging to fraternities of varying completeness is drawn. Formulae are presented for the standard errors of estimate; several illustrations" and a check against the data from 1800 college students are provided.—*E. B. Greene* (Michigan).

2302. **Camp, B. H.** Karl Pearson and mathematical statistics. *J. Amer. Stat. Asso.*, 1933, 28, 395-401.—On retirement after 42 years of activity at the University of London and the Galton Laboratory, Pearson's main achievements are the computing tables, the fundamental types of frequency curves, the chi-square test of significance, several varieties of correlation coefficients, and many applied studies in the fields of engineering, astronomy, eugenics, and anthropology. His personal qualities have combined warm friendship with a mighty zeal for analysis and accuracy.—*E. B. Greene* (Michigan).

2303. **Davies, O. L.** On asymptotic formulae for the hypergeometric series. *Biometrika*, 1933, 25, 295-322.—I. In which the fourth element is unity. The hypergeometric series  $F(\alpha, \beta, \gamma, 1)$  arises frequently in problems of chance when samples are taken from a finite population. The probability integrals of both normal and Poisson distributions have been tested for two new cases: (1) for successive samples of a population from which a sample of size  $N$  with  $p$  marked and  $q (= N-p)$  unmarked individuals had previously been drawn, and (2) for a sample taken from a finite population of size  $N$ . Tables and histograms are given showing the goodness of fit for a number of illustrations chosen to illustrate the various possible relationships of the variables.—*E. B. Greene* (Michigan).

2304. **Davis, H. T.** Polynomial approximation by the method of least squares. *Ann. Math. Stat.*, 1933, 4, 155-195.—This paper presents tables for use in fitting polynomials from the first to the seventh degree inclusive over the range from  $x = -p$  to  $x = p$ . These tables in conjunction with those published earlier

by V. V. Latschaw and H. T. Davis, *Ann. Math.*, 1930, 31, 52-78, for the range from  $x = 1$  to  $x = p$  will materially reduce the labor of fitting polynomial functions to data over various ranges.—J. W. Dunlap (Fordham).

2305. Good, W. R. *The elements of statistics*. Ann Arbor: Author, 1933. Pp. 28. \$0.50.—A condensation of the standard elementary material on the subject.—R. R. Willoughby (Clark).

2306. Lipmann, O. *Der Oskulationswert*. (The osculation value.) *Zsch. f. angew. Psychol.*, 1933, 45, 131-139.—The author defines osculation as the degree of agreement between an empirically and a theoretically determined curve. Mathematically he expresses the osculation value of two sets of measurements or tests as the degree (%) in which empirical measurements are nearer the ideal curve (perfect correlation) than the curve of chance relation (absence of correlation). If the empirical value  $e$  coincides with the ideal value  $i$ , the osculation value is 100. If it coincides with the chance value  $z$ , it is zero. If it lies between the two values it is expressed in terms of the distance between the ideal and chance values divided into 100 units. Thus we have for the osculation value  $\frac{e-z}{i-z}$  100. Two illustrations are added, one

for rank differences and one for absolute measurements.—K. F. Muenzinger (Colorado).

2307. Pearson, E. S., & Wilks, S. S. *Methods of statistical analysis appropriate for  $k$  samples of two variables*. *Biometrika*, 1933, 25, 351-378.—Criteria are set up and tested with practical illustrations for three hypotheses concerning the populations from which the samples of two variables have been drawn; (1) that the populations are identical, (2) that the populations have different means but the same variances and correlations, and (3) that the populations have identical means, but it is assumed that the variances and correlations are the same. It is concluded that in many problems the hypothesis of the second type is not adequately tested by the technique of "analysis of variance" when more than two samples are concerned. The application in the first instance of a single comprehensive test has several advantages. The methods suggested are not in final form, nor has the assumption that the variables are normally distributed been thoroughly explored.—E. B. Greene (Michigan).

2308. Pearson, K. *On a method of determining whether a sample of size  $n$  supposed to have been drawn from a parent population having a known probability integral has probably been drawn at random*. *Biometrika*, 1933, 25, 379-410.—A very general test, the  $P_{\lambda\eta}$  test, based on incomplete  $\beta$  and  $\Gamma$  Function Tables, which involves fewer assumptions and approximations than the  $\chi^2$  test. The new method has special advantages for small samples. It involves determining probability integrals, tables for which are now largely available. Several illustrations are given, with two warnings: (1) such tests suffice to allow a reasonable rejection of an hypothesis

but not of its acceptance as a rule of conduct; (2) while probability integrals should all be measured in one direction, that direction may initially be either direction. This method was found independently by R. A. Fisher and is given briefly in his *Statistical Methods for Research Workers*, 1932, sec. 21.1.—E. B. Greene (Michigan).

2309. Robinson, S. *An experiment regarding the  $\chi^2$  test*. *Ann. Math. Stat.*, 1933, 4, 285-287.—This experiment empirically demonstrates that in case the hypothesis being tested has been partially obtained from the data the Elderton table for  $\chi^2$  should be entered with  $n'$  equal to the number of frequency classes minus the number of statistics computed from the data. This can be proved when the size of the sample approaches infinity. The present paper shows that this is true for samples of moderate size.—J. W. Dunlap (Fordham).

2310. Snedecor, G. W. *Calculation and interpretation of analysis of variance and covariance*. Ames, Iowa: Collegiate Press, 1934. Pp. 96. \$1.00.—A monograph for students of moderate statistical training on the application of the indicated methods of R. A. Fisher. Examples are drawn from the fields of zoology, nutrition, horticulture, botany, education, agronomy, genetics, cooking, and economics. There are reference tables and 45 references.—R. R. Willoughby (Clark).

2311. Swab, J. C., & Peters, C. C. *The reliability and validity of estimates (ratings) as measuring tools*. *J. Educ. Sociol.*, 1933, 7, 224-232.—Each of 30 seventh-grade pupils and each of 34 eighth-grade pupils ranked his classmates in the following traits: honesty, courtesy, brightness, ability in arithmetic, height, and age. Reliability correlations both by the method of paired halves and by way of average inter-correlations were between .946 and .993 for all traits in both groups. For the four latter traits criteria for validity correlations were available; intelligence scores and grades were used as the respective criteria of brightness and arithmetic ability. Validity correlations for the seventh grade were: age, .525; brightness, .340; arithmetic, .770; height, .965; and for the eighth grade: age, .610; brightness, .210; arithmetic, .845; height, .825.—F. D. McTeer (Detroit Municipal University).

2312. Thompson, W. R. *On the likelihood that one unknown probability exceeds another in view of the evidence of two samples*. *Biometrika*, 1933, 25, 285-294.—An attempt to direct the course of research "suggested the possible value of seeking other modes of operation than that of taking large numbers of observations before analysis." The probability estimate that one treatment of a certain class of individuals is better than a second is treated in general and also with a specific illustration.—E. B. Greene (Michigan).

[See also abstracts 2231, 2321.]

#### MENTAL TESTS

2313. Baumgarten, F. *Die Testmethode*. (The method of testing.) *Abderhaldens Handb. d. biol.*



*Arbeitsmeth.*, Section VI, Part C. Berlin-Vienna: Urban & Schwarzenberg, 1933.—K. F. Muenzinger (Colorado).

2314. Klineberg, O. Mental tests. *Encyclopedia of the Social Sciences*, 1933, 10, 323-328.—The article includes a brief history of the development of the mental test from the early work of Galton up to the present time. According to the author the greatest dangers in mental testing lie in the undue stress which is often laid upon the purely quantitative aspects and in the failure to appreciate all of the social and cultural factors that enter into the result.—H. W. Karn (Clark).

2315. Line, W., & Ford, M. E. An evaluation of some results from the Knox cube test. *Amer. J. Psychol.*, 1934, 46, 59-69.—705 children between the ages of 5 and 15 years, and in all the grades in school, were tested with the Knox cube test. It was found that (1) the scores obtained increase slightly with age, (2) the  $r$  between MA (Stanford-Binet) and Knox score is approximately .58, (3) the  $r$  between school grade and Knox scores is .39, (4) the reliability appears to be low, and (5) there are only 4 levels of difficulty in the test.—D. E. Johannsen (Skidmore).

2316. Line, W., & Kaplan, E. Variation in IQ at the preschool level. *J. Exper. Educ.*, 1933, 2, 95-100.—The present study is a continuation of some recent investigations by Wellman on the effect of preschool training upon the IQ. From Wellman's files 54 case histories were selected for examination. The sole criterion of selection was that each case had a Binet test record of at least 5 tests, the first of which had been given before the age of 3 years. A preliminary examination of the data consisted in calculating the intercorrelations of the first to the fifth IQ ratings of these cases, irrespective of the intervals between retests. The next step was to secure IQ ratings approximated from the data that would represent the IQ's of the children at the same age, so that the intervals between IQ determinations would be 6 months in every case. A tetrad analysis of the data was also carried out. The main findings are summarized as follows: (1) Increase in IQ is greater for those who originally appear to be less intelligent. (2) The test results become more reliable as the number of retests is increased. (3) An important group factor underlies the intercorrelations of the earlier test results. Means of identifying the group factor are suggested.—H. W. Karn (Clark).

2317. Norden, I. Binetarium. (Binetarium.) Berlin: Zentralinstitut für Erziehung und Unterricht und Albrecht Dürer Haus. M. 12.00.—A new German adaptation of the Binet tests, which had originally been translated by Bobertag. The purpose of the author was to avoid tasks that are based on rote memory or are purely verbal or whose solution depends too much on the milieu of the subject, and to include on the other hand tests which stress age differences or give a chance for clinical observation. 474 children were used in the standardization of the new test series, which is designed to include the years 3-16.—K. F. Muenzinger (Colorado).

2318. Schlotte, F. Testheft für die Auslese der Minderbegabten. (A test blank for the selection of dull children.) *Päd.-psychol. Arbeit.*, 1931, 19, Pp. 56.—A copy of a test for dull children together with a detailed description, directions for giving, and norms of the test, which was constructed and standardized as one of the projects of the Teachers' Association of Leipzig. The norms are based on an examination of 1000 children.—K. F. Muenzinger (Colorado).

2319. Snee, T. J. The superiority measures of the performance of fourth-grade children: an analysis of the Witmer clinical standards. *Psychol. Clin.*, 1933, 22, 21-40.—400 fourth-grade children were given the tests of the Witmer clinical standards and the resulting norms are presented in tables. To find out whether results for the fourth grade correspond to those for children of normal fourth grade age, a group of nine-year-old children, whether in the fourth grade or not, was studied. The same tests were used, and the group was approximately equal in size to the first. The two sets of results were quite similar statistically, but it was found that any attempt to translate ratings obtained from the grade norms into ratings on the age scale gave results of very doubtful clinical value.—J. T. Metcalf (Vermont).

2320. Staber, F. Ein neuer Test für die Prüfung mathematischen Denkens. (A new test to measure mathematical thought.) *Vjsch. f. Jugendk.*, 1933, 4, 222-223.—Since it so often happens that a clerical error of one digit affects a whole series of subsequent calculations and results in a wrong answer the following test was devised: In various types of problem such as:  $a \times b = c$ ,  $d - c = e$ ,  $f : e = g$ ,  $g + h = k$ , the student was asked what effect an increase or decrease in  $b$  will have upon  $k$ , and told to explain his process of reasoning. This tests functional thought and understanding of direct and indirect proportionality; it can be made of varying degrees of difficulty and may be used to increase ability in making rapid estimations.—M. Lee (Chicago).

2321. Thumb, N. Der Faktorenaufbau einer Testreihe. (The structural relations between the factors of a test series.) *Zsch. f. angew. Psychol.*, 1933, 45, 86-130.—In German writings there is little mention of that type of statistical analysis of a test series which is known in English and American writings as factor analysis. The purpose of the author is to present to his German colleagues the mathematical reasoning which is built upon the assumption of the existence of independent factors in a test performance. This is followed by a brief description of Spearman's two-factor theory, and a detailed exposition of Thurstone's multiple-factor analysis. The author suggests that the tendency of the German psychologists toward the Gestalt point of view might have been the reason for their neglect of this important statistical method.—K. F. Muenzinger (Colorado).

2322. Thurstone, L. L. The vectors of mind. *Psychol. Rev.*, 1934, 41, 1-32.—Heretofore the only quantitative attempt to solve the problem of classifying personality traits and mental abilities was Spear-

man's "two-factor" or single-factor method. But this is inadequate to analyze the multi-dimensionality of mental traits, because it assumes a single general factor and many special factors and is unable to deal with the group factors which appear. To satisfy the tetrad-difference criterion the tests must be so selected as to have only one factor in common, for this criterion merely shows whether or not any given set of intercorrelations can be described in terms of only one common factor. The multiple-factor method of analysis, on the contrary, recognizes the possibility of group factors and attempts to determine the smallest number that must be postulated to account for the differentiable human traits. A description of the multiple-factor method is given, and the tetrad difference method turns out to be a special case under it. A number of specific studies of personality, in which the multiple-factor method has been used, are described; one on a list of sixty adjectives descriptive of personality, which yielded five group factors; one on the insanities, in which the whole range of psychotic symptoms reduced to five clusters; another on the vocational interests of college students; and a fourth on radicalism as a common factor. The multiple-factor analysis has been applied to two sets of data used by Spearman's students in support of the single-factor hypothesis. Both turn out to reduce to two common factors. It is suggested that an adequate multiple-factor analysis of mental abilities will probably yield at least three distinct though correlated factors—verbal ability, perceptual relations, and arithmetical ability; also that the isolation of mental abilities will turn out to be a problem in genetics.—A. G. Bills (Chicago).

2323. Vernon, P. E. The Rorschach ink-blot test. III. *Brit. J. Med. Psychol.*, 1933, 13, 271-295.—This portion of the series of studies deals with the diagnosis of aptitudes, intelligence, and mental defect, and with application to abnormal and clinical psychology. Studies were made with groups sufficiently large to make possible correlational analysis. A summary of the three papers in the series and a bibliography of 84 titles conclude the paper. The summary includes Rorschach's symbols for classifying responses to the ink-blots, with criticisms of the classificatory scheme and of the claims made for the test. The uncertainties and subjectivity of scoring, the lack of adequate norms, poor reliability, and almost complete lack of scientifically controlled validation are serious deficiencies. On the other hand, the qualitative significance of the Rorschach test remains, and the author believes that "it would seem, therefore, well worth while to divert some of the energy which is being expended on artificial tests of character and personality into the Rorschach method."—E. R. Hilgard (Stanford).

2324. Wilson, E. B. On overlap. *Proc. Nat. Acad. Sci.*, 1933, 19, 1039-1044.—"In *Abilities of Man* Spearman pictures overlap between specific abilities by overlapping areas. From the testing point of view one might think of overlap as arising if questions from a test for one ability were found by accident or by intent upon a test for some other ability." The

author gives a treatment of the tetrad relations involved in overlap.—W. N. Hallett (Cedar Crest).

2325. Winkler, H. Testserie zur psychologischen Untersuchung von Schulneulingen. (Test series for a psychological examination of children entering school.) Leipzig: Institut für experimentelle Pädagogik und Psychologie, 1930. M. 3.50.—A new edition of a booklet describing tests for children entering the first grade. Some directions are given for utilizing the results of the tests. The norms are based on an examination of 800 children.—K. F. Muenzinger (Colorado).

[See also abstracts 1973, 1977, 2185, 2226, 2346.]

#### CHILDHOOD AND ADOLESCENCE

2326. Anderson, H. H., & Smith, R. S. Motivation of young children: the constancy of certain behavior patterns. *J. Exper. Educ.*, 1933, 2, 138-159.—This study reports a retest of 102 young children tested 3 years previously on the Chase motivation hand dynamometer. The purpose of Chase's investigation was to obtain data on the relative effectiveness of a number of types of external incentives which have been given under controlled and experimental conditions with 4 comparable groups of children ranging in age from 2 to 8 years. By comparing the original scores with the retest scores the authors have been able to determine the degree to which a specific type of behavior pattern remains constant over a period of 3 years.—H. W. Karn (Clark).

2327. Balken, E. R., & Maurer, S. Variations in psychological measurements associated with increased vitamin B complex feeding in young children. *J. Exper. Psychol.*, 1934, 17, 85-92.—The purpose of this investigation was to determine the effects of an increased vitamin B complex diet upon the mental test performances of young children who, prior to the testing period, had been fed a diet inadequate in vitamin B complex. Analysis of the findings reveals an increased efficiency of performance with increased feeding of vitamin B complex. The suggestion is made that this improvement may have been due to maturation, practice, or an improved neurological state arising from the feeding of the additional vitamin B complex. Further experiments are needed in order to determine which of these factors was operative.—H. W. Karn (Clark).

2328. Birnbaum, F. Die seelischen Gefahren des Kindes. (The mental hazards of children.) *Beih. Int. Zsch. f. Indiv.-psychol.*, 1931, No. 5, 1-123.—R. R. Willoughby (Clark).

2329. Bühler, C. Drei Generationen im Jugendtagebuch. (Three generations of youth as seen in their diaries.) Jena: Fischer, 1934. Pp. 184. RM. 10.—In this, Volume 11 of the series *Quellen und Studien zur Jugendkunde*, an attempt is made to discover the significant differences in three generations of girls in their diaries without regard to those characteristic phenomena of adolescence which are common to all three generations. From a library of 93 diaries written by boys and girls whose birth years range from

1830 to 1915 four are published here in full, with abstracts of many others. The oldest of the three generations (girl born in 1873) is characterized by a strong family attachment to which personal problems are subordinated. Maturation and development seem to be forced by the environment on an individual who would prefer to remain static. The middle generation (girl born 1902) shows great emphasis on introspection, reflects on the need of guidance, loneliness, suffering, happiness, death. Love has taken on a more sensual aspect in addition to being a desire to be understood, in contrast to the hide-and-seek attitude of the oldest generation. Between these two are those born between 1880 and 1900, who begin to take preparation for a career for granted, develop objective interests and often denounce as frivolous dancing and social affairs, which frequently were the central point of interest in the oldest generation. This again changes in the youngest group (girls born in 1910) who again have a more social attitude (dancing, sports), get away from introspection, and are closer to their parents than the previous generation, though more critical of them. They are more given to self-criticism and have fewer intellectual interests outside of their preparation for a career. In comparison to the previous two generations these girls are more sure of themselves, simpler, do not take life and themselves too seriously, and are without the introspective, passionate attitude, which perhaps makes them more easily adjusted to practical life.—H. Beaumont (Kentucky).

2330. Busemann, A., & Harders, G. *Die Wirkung väterlicher Erwerbslosigkeit auf die Schulleistungen der Kinder.* (The effect of paternal unemployment upon the school work of children.) *Zsch. f. Kinderforsch.*, 1932, 40, 89-100.—Unemployment of the parents very quickly lowers school marks in all age groups in about two-thirds of the cases. Girls' marks suffer more than boys'. The greatest loss occurs in the younger age groups and among those who had highest marks previous to the unemployment. If the latter persists 3-4 years there is a still further decline in the effectiveness of school work.—K. C. Pratt (Michigan Central State Teachers College).

2331. Ciampi, L. *El estudio de la personalidad del niño en las instituciones del patronato nacional de menores.* (The study of child personality in the national juvenile institutions.) *Bol. instit. psiquiat.*, 1933, 5, 186-195.—The author recommends a more thorough study of the psychological capacities of institutionalized children. Thorough medical attention is also necessary. In this way proper vocational training may be given as well as social training. S. de Sanctis has claimed that the so-called delinquency of the child is almost entirely of pathological origin and is clinically discernible.—J. W. Nagge (Chicago).

2332. Clostermann, A., & Clostermann, G. *Über das Werden des jugendlich-weiblichen Gewissens. Eine Studie zur Psychologie der Reifezeit.* (The development of conscience in adolescent girls. A study of the psychology of puberty.) München-

Gladbach: B. Kühlen, 1933. Pp. xvi + 223. RM. 5.80, 6.75.—This is a part of investigations on adults and adolescents living in an industrial environment and concerns subjects of the Catholic religion. The first part deals with the principles and methods of the investigation, with special reference to the objections possible from the psychology of testimony and from the psychology of the female child and adolescent against experimental procedures. The second part gives the results, classified according to forms of conscience (preparatory forms, psychic tensions, ego reference, splitting of consciousness, types of activity, system of values, final forms, structure, complications, culminations, direction of curves of conscience) and the materials of conscience processes (cases acute and chronic, mosaic and structural), static and genetic structures, the influence of religion, family, love, morality, etc., upon the development of the conscience. The literature of the subject is discussed in detail.—G. Clostermann (Gelsenkirchen).

2333. Ederer, S., & König, J. *Das integrierte Kind.* (The integrated child.) *Jahrb. f. Kinderhk.*, 1933, 141, 46-59.—The "integrated" child is a "constitutional type" found in about 50% of children from the age of 6 on, the condition reaching its maximum at 12-13 years and thereafter decreasing. The distinguishing biological characteristics are: (1) decreased power of concentration, (2) relatively lengthened reaction time, (3) wide span of attention, (4) motility lengthened in temporal aspects and relative fatigability decreased. These are considered evidence of a biological under-development. From a personal behavior standpoint the child is: (1) social, (2) conflict-free, (3) easily modified by experience, (4) active, (5) not hypochondriac.—K. C. Pratt (Michigan Central State Teachers College).

2334. Fischer, S. *Über die Einsicht der Jugendlichen.* (Concerning the insight of adolescents.) *Zsch. f. Kinderforsch.*, 1932, 40, 497-516.—Judgments of normal male adolescents 14-17 years old regarding the lawful or socially appropriate character of the behavior of a youth presented in story form in a specific situation reveal that laws assuming insight of the adolescent concerning lawful behavior are psychologically not well-founded.—K. C. Pratt (Michigan Central State Teachers College).

2335. Fischl, P. *Die Altersrangvertauschung.* (Change in the rank order in age.) *Int. Zsch. f. Individ. psychol.*, 1933, 11, 460-464.—Not only is the milieu in which the child grows up important, but his attitude toward it must be given equal consideration. In corrective work both aspects of the behavior problem must be taken into account. If a change in environment seems desirable, the prospective new surroundings should be carefully analyzed and a selection made, not by blind guess or for convenience, but on the basis of fitness to meet the specific needs of the case. This is particularly true of those children whose maladjustments have developed because of their position as oldest, youngest, or only child in the family. Several cases are presented showing the efforts made to reorganize the child's attitudes when



placed in a corrective environment. It is pointed out that without the constructive reorganization of attitudes the corrective environment selected might as easily have been harmful as helpful.—O. N. de Weerdt (Beloit).

2336. Fitz-Simons, M. J. Some parent-child relationships as shown in clinical case studies. *J. Exper. Educ.*, 1933, 2, 170-196.—In the first part of this report the author describes the various steps in the development of a technique for the classification of cases according to the parent's emotional attitude towards his child. The technique devised, *A Guide For the Estimation of Parental Attitudes on Case Data*, is appended to the article. The second part of the report concerns the results of an attempt to discover any association which might exist between children's problems and different attitudes as determined by the use of the guide.—H. W. Karn (Clark).

2337. Friedjung, J. K. Über sexuelle Konstitutionen. (Concerning sexual constitutions.) *Zsch. f. Kinderforsch.*, 1932, 40, 489-492.—The author denies the existence of Heller's "sexual constitution" types and maintains that onanism with all the external characteristics of the orgasm may occur in sucklings without being associated with later retardation or other serious consequences.—K. C. Pratt (Michigan Central State Teachers College).

2338. Garrison, K. C. The psychology of adolescence. New York: Prentice-Hall, 1934. Pp. 337. \$3.00.—Written for use as a text in college classes. Part I gives general principles of development with special reference to changes at adolescence, while Part II discusses personality development and problems of mental health, especially of young people. There are seventeen tables, a number of quotations and a list of references.—E. A. Kirkpatrick (Leominster, Mass.).

2339. Giblette, C. T., & Macrae, A. An experiment in the treatment of feeding problems through parental education. *Ment. Hygiene*, 1934, 18, 92-108.—The writers found that the under-privileged and uninformed parents could learn and practice the general principles of nutrition and child psychology, which resulted in decreased feeding problems and better understood children.—H. S. Clapp (Children's Village, Dobbs Ferry, N. Y.).

2340. Goitein, P. L. The place of psychological play-technique in the treatment of the nervous child. *Mother & Child (London)*, 1933, 4, 297-298.—R. R. Willoughby (Clark).

2341. Gottschaldt, K. Der Aufbau des kindlichen Handelns. (The structure of the behavior of children.) *Beih. z. Zsch. f. angew. Psychol.*, 1933, No. 68. Pp. 228.—The author's aim was to study and compare the behavior of normal and subnormal children. He discards the usual intelligence tests as unsuitable for his purposes and adopts the methods which Köhler has developed with apes. Lewin's dynamic concepts form his theoretical background. The experiments, which consisted of adaptations of Köhler's situations, were carried out with 26 normal children, 19 morons,

22 imbeciles, and 16 idiots. The results show how children of low mentality differ qualitatively from normal children. With increasing age subnormal children do not reach the level of achievement of normal ones. Their primitive mind has a structure of its own.—K. F. Muenzinger (Colorado).

2342. Greenwood, A. K. Das erste Halbjahr eines Säuglings. (An infant's first half year.) *Int. Zsch. f. Individ.-psychol.*, 1933, 11, 464-467.—Generalized observations by a young mother on the incidence and development of behavior traits in her first-born child. Time records are in terms of months only. Many subjective speculative interpretations in terms of purpose, insight, and will-power are presented.—O. N. de Weerdt (Beloit).

2343. Hardcastle, D. N. The child guidance clinic in America: its evolution and future development. *Brit. J. Med. Psychol.*, 1933, 13, 328-353.—The paper is prepared on the basis of three years' study of child guidance clinics and a questionnaire to which replies were received from 12 representative clinics.—E. R. Hilgard (Stanford).

2344. Hazlitt, V. The psychology of infancy. New York: Dutton, 1933.—The history and methods of child study are described and the place of hereditary and prenatal influences discussed. The results of observational and experimental studies of reflexes and of motor development by various persons are summarized, and some attempt made to determine the nature of young children's perceptions and emotions. Learning to walk and the development of speech are described. Research results and advice regarding the foundations of special habits are given. The method of unconscious conditioning is favored. The discussions of memory, thinking, and character are not limited to the age below three years. An extensive bibliography is appended.—E. A. Kirkpatrick (Leominster, Mass.).

2345. Heller, T. Über sexuelle Konstitutionen. (Concerning sexual constitutions.) *Zsch. f. Kinderforsch.*, 1932, 40, 72-81.—The author differentiates between the so-called onanism of the suckling and that of the older child or adult. In the former, the goal appears to be pleasure in activity directed upon parts of the organism, a kind of play activity. In the latter, the aim of the activity is the orgasm. When the latter is found in the suckling it is associated with pronounced mental retardation. The "sexual constitution" is one in which sexual feelings play a dominant role in an unfavorable mental development characterized by inner conflicts and asocial types of behavior.—K. C. Pratt (Michigan Central State Teachers College).

2346. Hetzer, H., & Jenschke, M. T. Nachprüfung von Testgutachten im zweiten Lebensjahr. (Re-examination of test diagnoses in the second year of life.) *Zsch. f. Kinderforsch.*, 1930, 37, 653-660.—Re-tests of 24 children 3-14 months after the first examination (at from 3 months to 2 yrs. 3 months) by use of the "Babytests" prove that the earlier diagnoses of normal, retarded or advanced remain unchanged with the exception of two cases. The

factors operating in the latter are easily singled out.—*K. C. Pratt* (Michigan Central State Teachers College).

2347. *Holub, A. Wege zu besonderen Fähigkeiten ("Begabung").* (Ways in which special abilities ["aptitudes"] are developed.) *Int. Zsch. f. Individ.-psychol.*, 1933, 11, 350-353.—Presents a questionnaire which offers for the benefit of physicians and educators an outline of the factors influencing, according to individual psychology, the development of special abilities and disabilities.—*O. N. de Weerd* (Beloit).

2348. *Isaacs, S. The psychology of the two-year-old. Mother & Child* (London), 1933, 4, 258-262.—*R. R. Willoughby* (Clark).

2349. *Jaederholm, G. Bemerkungen zum Thema: psychopathische Kinder.* (Remarks on the subject: psychopathic children.) *Acta psychiat. et neur.*, 1933, 8, 455-461.—In regard to the child clinics planned for problem children in the Scandinavian countries, the writer makes a plea for the use of the well-trained child psychologist, either as director or at least on the staff of such clinics. "Psychiatry has as yet not made many investigations on the psychology or nervous disturbances of young children." The pediatrician has not generally an outlook on the mentality and character of the child. Modern American child clinics are cited as the only ideal clinics now in existence, and the writer, in making his various points, draws upon his personal experiences while at one time conducting an investigation in such an American clinic.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

2350. *Jaehner, D. Ueber Einstellung des Kleinkindes zum Tode.* (The attitude of the small child toward death.) *Zsch. f. angew. Psychol.*, 1933, 45, 262-288.—The attitude of the small child toward death is quite realistic. His first questions refer to the dead person, later ones to the act of dying and to what happens after death. Death does not frighten the child, although he is quite responsive to expressions of grief and sorrow in adults. Children differ especially in the ways in which they refer the possibility of dying to themselves and in their desire for life after death.—*K. F. Muenzinger* (Colorado).

2351. *Keilhacker, M. Die Verwendung von Aufsätzen im Dienste der Jugendpsychologie.* (The use of compositions in the service of youth psychology.) *Zsch. f. angew. Psychol.*, 1933, 45, 289-332.—The author wonders why so little attention has been paid to school compositions as a means of studying the psychology of the pupils. He presents an analysis of some 2000 compositions from pupils of all grades up to college. The subject was the same in all cases and was based on a film which had been seen by all the children. The author shows how age is closely correlated with detail of description, abstract concepts, and emotional life. 34 references.—*K. F. Muenzinger* (Colorado).

2352. *Kellogg, W. N. A further note on the "wolf children" of India. Amer. J. Psychol.*, 1934, 46,

149-150.—A letter from the physician who attended the "wolf children" from the time of their capture until their deaths is quoted in full.—*D. E. Johannsen* (Skidmore).

2353. *Kipp, H. Die Unehelichkeit. Ihre psychologische Situation und Problematik.* (Illegitimacy. Its psychological situation and problems.) Leipzig: Barth, 1933. Pp. vi + 180. RM. 9.80.—The illegitimate child has a special position in the community and conflicts arise in him by reason of public opinion, incompleteness of the family, denial, concealment, etc. On the basis of a large material, the writer shows the way from external conflicts to inner problematic situation in the mind of the illegitimate child. Factors which aggravate the conflict (like difference between the social positions of the parents, "specific nearness" in the mother-child relation, crises of development and psychopathic constitution) find special consideration. A detailed analysis is given of the typical modes of behavior and reactions of illegitimate persons (longing, aggression, resignation, identification). The analysis of the overcoming of conflicts makes it evident that besides the much stressed "right of the woman to the child" there is the much more deeply grounded right of the child for education in a parental community. In the extensive bibliography American authors also are included.—*F. C. Fischer* (Hamburg).

2354. *Kipp, H. Die Unehelichkeit. Ihre psychologische Situation und Problematik.* (Illegitimacy, its psychological situation and problems.) *Beihfte z. Zsch. f. angew. Psychol.*, 1933, No. 66. Pp. 180.—The problem of this monograph is to describe the experience of illegitimacy and its personal significance. The material, which was gathered in Berlin between 1929 and 1931, consists of 220 case studies of persons born out of wedlock, most of whom were 13 to 21 years old. The cases are analyzed chiefly from the points of view of public opinion and of the incompleteness of the family. The author concludes that the psychological situation of illegitimate children is a unique one which makes it difficult, if not impossible, to achieve equal status for illegitimate and legitimate children. 135 references.—*K. F. Muenzinger* (Colorado).

2355. *Latmanisowa, L. [Chronaxy of the neuromuscular system of adolescents.] Arch. biol. nauk.*, 1932, 32, 394-400.—Chronaxy of the biceps and of the extensors and flexors of the fingers for adolescents are intermediary between chronaxies of adults and infants.—*H. E. Burt* (Ohio State).

2356. *Leuba, C. An experimental study of rivalry in young children. J. Comp. Psychol.*, 1933, 16, 367-378.—32 children were required to put pegs of uniform color in a peg board, working singly and then in pairs. "With these children three stages of development were observable: the first stage (the two-year-olds) in which there was little reaction to the presence of another child at the same task, other than to look at him occasionally; the second stage (three-and four-year-olds) in which there was a variety of reactions to the other child, including

rivalry responses in some cases, and a lessened output usually in the together situation; and a third stage (the five-year-olds) in which rivalry responses were usually the dominant ones in the presence of the other child and the output was materially increased."—*N. L. Munn* (Pittsburgh).

2357. Mendenhall, J. E., & Mendenhall, M. A. *The influence of familiarity upon children's preferences for pictures and poems*. New York: Columbia University, 1933.—Appreciation is now an accepted objective in education, and the efficiency of methods of developing it should be investigated. The chief purpose of this study was to determine the effect of one factor, repetition, upon appreciation. 50 carefully selected pictures and the same number of poems were paired by several judges as being equally appreciated and confirmed by the first test with the children. One or two series of 10 pictures or poems each were then presented visually and judged by the children as good or poor. Some of each pair appeared frequently and others rarely. The tests were given to pupils of Grades VII and IX, who averaged 12 and 14 years of age. In general, pictures and poems liked when presented many times grew in favor, but if disliked, grew in disfavor. This was not uniformly the case, apparently because of differences in other factors such as meaning, rhythm, and rhyme. The pictures and poems used are included in the study.—*E. A. Kirkpatrick* (Leominster, Mass.)

2358. Miller, F., & Richards, L. *Parental behavior as an index to the probable outcome of treatment in a child guidance clinic: a second investigation*. *Smith Coll. Stud. Soc. Work*, 1933, 4, 139-150.—"This paper continues an investigation into reasons for success and failure in child guidance work. The original investigation, reported in the June, 1933, number of *Smith Coll. Stud. Soc. Work*, suggested that in the behavior of the parents toward the children who were clinic patients was to be found an index to the probable outcome of treatment. This paper reports the results of testing the reliability of the parental behavior categories, and the findings in an additional hundred and two cases of success and failure." Results are in agreement with those of the original investigation.—*R. H. Brown* (Clark).

2359. Moses, J. *Psychische Auswirkungen sexueller Angriffe bei jungen Mädchen*. (Psychical consequences of sexual attacks upon young girls.) *Zsch. f. Kinderforsch.*, 1932, 40, 542-570.—In 60 cases attacked between the ages of 4 and 14 years after-effects followed in 37 cases. These after-effects take the form of neurotic phenomena, masturbation, preoccupation and fantasies concerning sexual matters, and active heterosexual activity. The older girls show least after-effects. Similarly the infantile and prematurely developed girls escape serious consequences, as do two-thirds of the feeble-minded. The greatest harm is done to neurotic, psychopathic and enuretic children.—*K. C. Pratt* (Michigan Central State Teachers College).

2360. Nelson, W. *The history of child guidance in St. Louis*. *Ment. Health Observer*, 1934, 2, No. 3,

2.—The founding of the Psychiatric Child Guidance Clinic, establishment of the St. Louis Training School (for feeble-minded), inadequacy of child guidance service, and its value are described.—*R. H. Brown* (Clark).

2361. Neumann, G. *Untersuchungen über das Verhältnis zwischen Stiefmutter und Stiefkind*. (Studies of the relation between stepmother and stepchild.) *Zsch. f. päd. Psychol. u. Jugendk.*, 1933, 34, 358-367.—An analysis of compositions spontaneously written on the theme *What you know about stepmothers, especially about the relations to your own*, by 489 eighth-graders of Berlin-Charlottenburg, 30 (6.1%) of whom were actually stepchildren, 16 boys and 14 girls. 50% of the boys and 50% of the girls indicated unfavorable, 37% of the boys and 43% of the girls favorable, and 13% of the boys and 7% of the girls indefinite relationships to their stepmothers.—(Courtesy *J. Educ. Res.*)

2362. Niemer, G. *Eine Novelle als Ausdruck und Gestaltung überwundener Pubertätskrisis*. (A novel as expression and formulation of a surmounted puberty crisis.) *Vjsch. f. Jugendk.*, 1933, 4, 210-222.—K12, quoted in a previous essay, at 21 wrote a short novel in a prize contest. The experiences of his hero, whom he has endowed with much of his own personality, while in fact unlike those of K, are shown in analysis to present many of K's conflicts and emotional difficulties. The author's personal history and his other writings substantiate this interpretation. In quality the writing varies with the truth of its content, and the psychological inaccuracies can be traced to an unconscious introduction of a point of view only later attained. The analysis shows with what compelling necessity the experiences of youth seek outward expression.—*M. Lee* (Chicago).

2363. Parten, M. B. *Social play among preschool children*. *J. Abn. & Soc. Psychol.*, 1933, 28, 136-147.—Observations of the spontaneous play of nursery school children by the one-minute sampling method indicated that preschool children most frequently play in groups of two, the size of play groups increases with age, two-thirds of the two-child groups are unisexual, the majority of the child's favorite playmates are of the same sex, the I Q has little influence on the preschool child's friendships, age and home environment influence friendships. Siblings in the group showed a marked preference for each other's society. Playing house was the most social type of play engaged in by the children. Sand play and constructive work with clay, paper, beads, and paints were characteristically parallel play activities. The younger and older children in the group differed in the manner in which they played with toys, and hence differed in the social value each toy had for them.—*C. H. Johnson* (Boston Psychopathic Hospital).

2364. Peiper, A. *Die Atmung des Neugeborenen*. (The respiration of the neonate.) *Jahreskurse f. ärztl. Fortbildung*, 1933, 24, 21-25.—The neonate breathes principally with the diaphragm. In sleep the movements are rhythmical, becoming irregular in the waking state, under the influence of practically



all forms of stimuli. Premature infants manifest irregular and periodic types of respiration which are physiological at lower phylogenetic levels. The neonate differs from the adult not only in the rate and character of respiratory movements but in the ability to suck without interrupting breathing. In the neonate the acts of sucking, swallowing and breathing constitute a well-organized unit.—K. C. Pratt (Michigan State Central Teachers College).

2365. Peiper, A. Diagnostisch wichtige Reflexe des Kindesalters. (Diagnostically important reflexes of childhood.) *Kinderärztl. Praxis*, 1933, 4, 189-194.—The brain of the neonate differs from that of the adult in function rather than in form. In the neonate the activities of the organism have their centers in the phylogenetically and ontogenetically oldest parts of the brain, principally in the brainstem. During the first year development occurring in the younger parts of the brain serves to modify and inhibit earlier forms of behavior. Any disturbance of this development leads to a delay in their disappearance. Reflexes which serve in the diagnosis of retardation or of the hypo-irritability or hyper-irritability of the nervous system are: Peiper's eye-neck reflex, pupillary reflexes, certain palpebral reflexes, sucking, Brudzinski's reflex, Moro's Umklammerung reflex, etc.—K. C. Pratt (Michigan Central State Teachers College).

2366. Plewa, F. Zur Psychologie der Jugendbewegung. (Contribution to the psychology of the youth movement.) *Int. Zsch. f. Indiv.-psychol.*, 1933, 11, 353-368.—The article deals with the movement especially as an expression of a general wandering tendency. Blueher in a study of the movement presented the Freudian viewpoint, involving implications of homosexual tendencies, if not of practice, based on the assumption of the biological bisexuality of humans. Plewa combats this interpretation by the presentation of motives socially developed by individuals and evidenced in various case records. The wanderers typically have histories of rebellion against authority in home, school and various communal institutions. This attitude is for Plewa not originally a cause, but an effect of the treatment accorded the child in the given circumstances. The wanderers' movement is then a way out for the asocial or anti-social individual. While leadership is evidenced and some group organizations are formed, these do not tend to develop permanence or constructive social objectives, since they require amalgamation of the individual into a cooperative community, for which the neurotic wanderer is unfitted. The movement has at present largely fallen from its peak of a few years ago. There remains, however, a group sufficiently large to present a problem. Corrective work requires that each individual be helped to gain interest in a definite goal of constructive achievement and to find contentment and security as a cooperating member of a stable socialized group.—O. N. de Weerdt (Beloit).

2367. Robinson, E. W., & Conrad, H. S. The reliability of observations of talkativeness and social

contact among nursery school children by the "short time sample" technique. *J. Exper. Educ.*, 1933, 2, 161-165.—The data reported in the present article are subsidiary to a study of the "time-sample" technique in the measurement of emotional expressiveness of nursery school children. The results indicate that reliable measures of talking and social activity can be obtained by the time-sampling technique for at least the majority of nursery school children.—H. W. Karn (Clark).

2368. Schmeing, K. Gestalt, Sexualität und Entwicklungsstufen. (Gestalt, sexuality, and developmental stages.) *Vjsch. f. Jugendk.*, 1933, 4, 204-210.—Applying the principle of Gestalt to human development, Müller-Freienfels has said that puberty is not a cause but a symptom of the development of the whole individual. But it is neither exclusively a cause nor exclusively a symptom. Sex development differs from development of other organs since it serves a phylogenetic rather than an ontogenetic end. It is relatively independent of the organism as a whole, and the steps in its development reflect earlier final steps in primitive man. The apparent disharmony in the adolescent years is due to a striving for a higher psychic level, although the biological end-point has already been attained.—M. Lee (Chicago).

2369. Schneersohn, F. Sociability of abnormal children and social child psychology. *Amer. J. Psychiat.*, 1933, 12, 1307-1337.—A preliminary survey of the play and group life of mentally subnormal children. Social child psychology differs from social psychology of adults and is defined as "a science which concerns itself with the mental group life of children in their concrete entity and peculiarity. Three different forms of child collectives, the family collective, the local collective and the school collective, are found, each having a different structure and also a different significance in the development of the child. The behavior of normal children during school recess is described and compared with the behavior of mentally retarded children. The latter seem to differ from the normal children in the amount of group formation, the organization of the groups and the structure of the play. The amount of deviation from the normal collective activity is correlated with the amount of mental retardation. Sociability, as indicated by the play behavior of children, gives us an intelligence test of child collectives." The investigations (carried on at Randall's Island) showed that at every stage of limited sociability there are always found traces of a higher stage. The presence of these traces is considered of strong clinical-educational significance, and the author believes that in "dealing with much retarded children, we should, with the help of systematic grouping and suitable toys, methodically stimulate group formation and collective playing." The "loneliness" or asociability of nervous children is considered as "functional," in contrast to the "organic" asociability of the mentally defective. Depression, abnormal bashfulness, nervous mobility, one-sided abilities, sociolo-

gical disturbances, and educational disturbances are considered factors influencing the sociability of some nervous children. Play is considered clinically as of vital importance in the life of the child; lack of play leads to nervousness. "When the child lacks the opportunity for productive play, he impulsively seeks an outlet (differing in each individual according to character and situation), in various destructive games of primitive passions," or in nervousness. Play is considered, biologically, as a means for the individual "to use and to train all those creative forces which are ignored or limited by the necessary adjustments of the struggle for existence." "Through his parent's instincts, nature frees the child from the struggle for existence, from 'work,' in order to awaken and to develop through play, free creativity." An underdeveloped affective life is found in individuals who did not play in childhood. The content of play "proves to be an organic expression of the child's emotion and fantasy." The play fantasy of children expressing the intimate emotions in images, is utilized by the author in investigating the emotions of children. Four principles of play investigation are enunciated: (1) the principle of play content, (2) the role in the play, (3) nuances in play, and (4) play procedure and play finish. "Our investigations of the epic narrative fantasy of children have shown that in children's tales, as in their play, the last motive is the decisive characteristic of the child's emotional life." Bibliography.—N. Goldman (Boston Psychopathic Hospital).

2370. Seidler, R. *Kinderträume*. (Children's dreams.) *Int. Zsch. f. Indiv.-psychol.*, 1933, 11, 450-459.—In refractory problem cases of children the real sources of the incapacities and wrong attitudes are revealed only with great difficulty. Analysis and corrective measures must of necessity overlap. Since the behavior difficulties are defense mechanisms against fear of inadequacy, the cooperation of the child is not easily secured. The wrong attitudes and incapacities are tenaciously adhered to, even aggressively demonstrated by the child because of their defensive character. The unnecessary and futile character of his behavior as a defense mechanism must be revealed to the child in order that his active cooperation may be secured in correcting his difficulties. His dreams may often be effectively utilized in the solution of this problem, since they can clearly reveal to the child the fundamental tendency in his efforts to solve his problems. This tendency is symbolically expressed in the *Schwung* (Adler) or trend of his dream imagery. Twelve dreams of problem children are related in exemplifying their diagnostic value.—O. N. de Weerd (Beloit).

2371. Selling, L. S. Reducing children's nuisance values. *Ment. Health Observer*, 1934, 2, No. 3, 7.—Of three well-accepted rules of mental hygiene which can be easily applied to the mischievous child, consistent training, opportunity for adequate recreation, and thoughtful neglect, the writer emphasizes the application of the third to the child who is a nuisance.—R. H. Brown (Clark).

2372. Shelton, E. K. Osseous development as an index of metabolic speed. With special reference to the mentally subnormal and emotionally unstable child. *Endocrin.*, 1933, 17, 667-676.—In a group of children selected for psychiatric study by a child guidance clinic one-third were found to have retarded bone development. Relationship between bone age and emotional stability seems more than mere coincidence. There appears to be no consistent relationship between bone development and mental age. An evaluation of the degree of carpal unfolding is important in the selection of those mentally subnormal and emotionally unstable children best suited for substitution therapy.—D. J. Ingle (Minnesota).

2373. Steinbach, A. A. A survey of adjustment difficulties in children and youth drawn from the normal population. *Elem. School J.*, 1933, 34, 122-130.—This article reports the responses of 492 mothers to questionnaire interrogations concerning their children's: (1) personality conflicts, (2) reactions to food, (3) sleep, and (4) fears. The number of boys was 257 and of girls 235. Chronological ages were unevenly distributed from 1 to 24. Tables present the frequently reported traits for the entire group, and for boys and for girls. "One hundred children of preschool age, an equal number of children of school age, and more than a score above school age (of a total of 499 children) seemed to present adjustment difficulties." Lists are presented for "only" children and for the entire group. The "traits" nervousness, disobedience, and stubbornness lead both lists, with somewhat higher percentages among "only" children.—P. A. Witty (Northwestern).

2374. Stern, E. *Anormalidades mentales y educabilidad difícil de niños y jóvenes*. (Mental abnormalities and educational difficulties of children and adolescents.) Barcelona, Buenos Aires: Editorial Labor, S. A., 1933. Pp. 244.—Translated from the German by A. Chleusebairgue and A. Colero.—J. W. Nagge (Chicago).

2375. Stogdill, R. M. Attitudes of parents, students, and mental hygienists toward children's behavior. *J. Soc. Psychol.*, 1933, 4, 486-489.—A list of 70 items of child behavior was presented to 110 parents, 45 college students, and 50 authorities in child guidance for judgments as to the undesirability of the traits mentioned. Students and parents agreed closely. Both disagreed with the mental hygienists. The latter emphasized acts indicating maladjustment, while the former opposed breaches of discipline or moral tabus.—E. B. Newman (Harvard).

2376. Tumlriz, O. *Wiederholungen in der seelischen Entwicklung*. (Repetitions in mental development.) *Vjsch. f. Jugendk.*, 1933, 4, 193-203.—Early tendencies to study only one period, such as the pre-school years, the school age, or adolescence, caused aspects of development as a whole to be overlooked. Even Schmeing's theory of two phases of puberty, 3-6 and 11-16, neglects the significance of the intervening years. In reality there are four stages or spurts in mental growth: 2-5, 7-11, 14-17, and 17-adult, between which striking parallels exist. The

first and third stages are alike subjective, having for their goal the realization of the ego as contrasted with the world outside. It is a naïve subjectivism in the child and a critical subjectivism in the adolescent. Both periods are marked by sex development, emotionality, lack of self-control, fantasy, imagination, and a sort of play-acting which serves to explore the individual's potentialities. The second and fourth stages are characterized rather by naïve and critical objectivism, rationality, awareness of reality, and practical values. Each mental growth period accomplishes a necessary purpose in the individual's development and prepares the way for the next step.—*M. Lee* (Chicago).

2377. Vance, T. F., Prall, C. L., Simpson, R. V., & McLaughlin, F. E. The development of children in the home management houses of the Iowa state college. *J. Exper. Educ.*, 1933, 2, 166-169.—A report on a series of studies concerning the development of children in home management houses. The home management children as a group excelled the groups in boarding homes and in the orphanage in every aspect that was studied: intelligence, motor development, language development, adaptive behavior, and personal-social behavior. The home management group were superior in motor development to control groups in both professional and non-professional homes. They were likewise superior to children from non-professional homes in personal-social behavior, and inferior to children from both professional and non-professional homes in language development and adaptive behavior.—*H. W. Karn* (Clark).

2378. Walter, H. Zum Milieu des Landkindes. (Concerning the environment of the country child.) *Zsch. f. Kinderforsch.*, 1932, 40, 476-488.—An investigation according to occupational groups was made of the environment of 3986 children in 50 country schools by having the children write answers to the following questions: (1) Do you say grace at table? (2) Do you have a tree at Christmas? (3) Do you take a newspaper? (4) What books do you have besides your school books? (5) What games do you play at home? (6) Do they spin wool at your home with the spinning wheel? (7) What did you receive for Christmas? (8) Have you ever ridden on a train? The answers disclose an astounding religious indifference, except in the landowning and governmental classes. The intellectual and cultural environment is poor as measured by books and other reading material available in the home.—*K. C. Pratt* (Michigan Central State Teachers College).

2379. Weinstein, A. *Genius. J. Hered.*, 1933, 24, 417-424.—Critical review of *Genetic Studies of*

*Genius*, vols. 2 and 3 (L. M. Terman, ed.).—*B. S. Burks* (California).

2380. Wembridge, E. R. Psychologists and nurse-maids. *Survey Graphic*, 1933, 22, 471-472.—*R. R. Willoughby* (Clark).

2381. Wemmer, C. Ursachen und Formen der Asozialität früherer Hilfsschüler. (Causes and forms of asociality in younger opportunity-school children.) *Zsch. f. Kinderforsch.*, 1932, 40, 105-186.—Analysis of 103 cases indicates that there is no asocial type in a pathological sense. Feeble-mindedness is rarely the direct cause of asocial behavior, but is rather the basic predisposing factor on account of the concomitant social conditions which are the direct causes. A bibliography of 58 titles is appended.—*K. C. Pratt* (Michigan Central State Teachers College).

2382. Witmer, H. L., & others. The outcome of treatment in a child guidance clinic: a comparison and an evaluation. *Smith Coll. Stud. Soc. Work*, 1933, 3, 339-399.—*R. R. Willoughby* (Clark).

2383. Yü, W. W. [Child psychology.] Shanghai: Ta Hwa Book Co., 1933. Pp. 113. \$.40 mex.—This book treats in a rather conventional way the following topics, viz., (1) physical development of the child, (2) primitive behavior, (3) "instincts," (4) sensations, (5) emotions, (6) play, (7) language, (8) learning, (9) drawing, and (10) care of daily life. The material is cited from experimental results of the various child psychologists.—*C.-F. Wu* (Nat. Res. Instit. Psychol., Shanghai).

2384. Zelig, R., & Hendrickson, G. Racial attitudes of 200 sixth grade children. *Sociol. & Soc. Res.*, 1933, 18, 26-36.—Reactions of these children toward 39 races were measured by a racial attitudes indicator modeled on the original social distance questionnaire by Bogardus. It was found that (1) the racial attitudes indicator differentiated well for the various social relationships and various races; (2) correlations between the attitudes of Jewish and non-Jewish children and the attitudes of the boys and girls were generally high; (3) the Jewish group was more reserved than the non-Jewish, girls were more reserved than boys; (4) racial attitudes of Jewish children correlated high with those of Jewish adults previously ascertained by Bogardus. The most significant factor related to social tolerance was the degree to which the children claimed acquaintance with the various races. This relationship was high for all races except the negro.—*J. R. Hilgard* (Stanford.)

[See also abstracts 1907, 2035, 2098, 2146, 2149, 2156, 2163, 2166, 2168, 2173, 2186, 2256, 2265, 2270, 2284, 2316.]



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